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The above photograph (shows the actual size) inner side of an 8-inch section of "Vallo" Patent Codlin Moth Tree Bands in which 60 or more dead grubs or caterpillars can be seen. This, however, does not represent the full number of the kill as this photograph shows only one set of corrugations. The Band is actually a double trap as it not only traps the grubs in the corrugations lying immediately next to the trunk of the tree (as shown above) but a similar number are trapped and killed in the second series of small passages which are formed by the smooth outside section of the Band against the corrugated section.

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INCREASING TRADE WITH THE EAST.

. The s.s. "Sidajoe," 1,700 tons register, recently arrived in Melbourne on her first visit from the East. She will load for the return voyage a full cargo of fruit and merchandise. The addition of this new steamer is indicative of the steadily growing trade with Australia and the East.

The "Nieuw Holland" and the "Tasman" comprise the remainder of the K.P.M. fleet which carry Australian products to the East.

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Australian Apple and Pear Export Council.

Valuable Progress Report.

THE ANNUAL MEETING of the Australian Apple and Pear Export Council will be held at Sydney early in November. The creation of an Australian Freight Committee will be one of the most important items before the Conference. Already preliminary arrangements are being made for nominees from the several States to arrange for the 1934 shipments in co-operation with the Overseas Shipping Representatives' Association. A progress report signed by the President (Mr. J. B. Mills, has been issued), a summary being as follows:—

Inspection Fee on Rejected Fruit.—The Department of Commerce accepted our resolution, which requested that a charge be not made a second time when detained fruit was resubmitted and that the levy be charged only on fruit actually shipped.

Overseas Freights.—Pressure had been brought to bear to secure freight reduction and better distribution. The fruit industry was not adequately served in the 1933 export season and more space should have been available on the Conference Lines during March and early April, and the other refrigerated export industries should have shared in the filling of the chartered steamers. During the congestion in London, other markets were inadequately served. The proposed Freight Committee of the Council should fix a programme of co-ordinated arrival dates with regulated quantities.

Proposed French Duty on Fresh Fruits.—Earlier in the year, the Department of Commerce informed us that the French Government had proposed to impose quota restrictions on many products, which included fresh Almonds, Peaches, Nectarines, Apricots, table Pears, Apples, Plums, Cherries, Strawberries, etc. We are glad to state, however, that later information was received that these were not proceeded with.

Case Standardisation.—The Council for Scientific and Industrial Research has been conducting experiments over two seasons under the direction of the Special Committee on Fruit Cases upon which the Apple and Pear Export Council is represented. The Canadian type case made of hardwood and softwood and the Australian dump of hardwood have been packed and subjected to various hazards in order to compare the relative protection given to their contents. The indications are that the dump shape affords the best protection, but that if cases are required to hold a minimum of 42 lb. net weight of Apples at time of packing, the case needs to be ¼ in. wider than its present dimensions. A report giving the detailed results and recommendations is being prepared for publication and will be available at the November meeting.

Weight of Fruit in Cases.—As a result of the Council's recommendation, many growers were now branding cases with the number of Apples packed, as well as the sizes of the fruit.

Two Half Cases Strapped Together.—In response to the request that two half dump cases strapped together be adopted as one dump case, the Overseas Shipping Representatives' Association replied that they could only charge the bushel rate for two half bushel cases strapped together, provided that the three measurements of such package conformed exactly to the three measurements of the recognised bushel cases. The West Australian Association disagrees with this ruling. They state that while the actual case measurement of two half cases must necessarily be greater than those of the bushel case by a thickness of one top and one bottom, it is nevertheless contended that the two half cases actually require no additional stowage space owing to the bushel case having a much greater bulge. Under these circumstances, it is still contended that the rate of freight on a half bushel case should be half the bushel rate, and it is hoped that the O.S.R.A. will concede this point, which is a reasonable one.

Size of Cases.—The Department of Commerce agreed to the Council's request that the export regulations should be amended which would provide that fruit cases for shipment be not passed where the ends of more than 5 per cent. of the total number of cases from a grower measure less than the sizes provided in width and that no case under the present 5 per cent. allowance be passed for shipment.

Grade Standards.—The Department of Commerce agreed with the Council's request to amend the "plain" grade regulation reducing the total blemish to an area of a circle having a diameter of ¼ in. The Council recommended that the regulations be amended as to eliminate the export of Alfristons, Mobb's Codling, Prince Alfred and Allingtons under 2⅜ in. diameter. The Department of Commerce advised that this matter was discussed by the various State Supervising Officers for fruit, but as these officers could not recommend the adoption of the resolution, it was regretted it could not be accepted for gazettal.

Overseas Marketing.—Effective touch had been maintained by cable between the Council and the National Federation of Fruit and Potato Trades, London, particularly with regard to weekly quantities for normal market absorption. This matter is one for the new Freight Committee.

Fireblight Embargo.—So far no report has been received from the Commonwealth Government regarding the proposed conference of biological experts regarding the danger of the importation of fireblight on imported Apples.

Duty on Strawboards.—The Council's recommendation to the Government that drawback be allowed on the export of corrugated strawboards has not been granted. The Minister of Trade and Customs wrote under date July 5 stating that an application had previously been made for drawback on these goods, but such application was not approved, chiefly for the reason that suitable materials of Australian manufacture were available. Further, there would be serious difficulties in the way in identifying the goods for drawback purposes.

Pear Indemnity Clause.—So far, no uniform Pear indemnity clause has been decided upon and the whole question has arisen as to whether any indemnity at all should be given in connection with shipments of Pears. This question arose in Victoria, where some Pear shippers requested a lower temperature than that recommended by the shipping companies, and the indemnity given by the shippers was to the effect that no claim would be lodged if the fruit carried badly by reason only of it being conveyed at such lower temperature. In all other respects the ship was liable for claims made.

One shipping line demanded an indemnity against all loss in carrying Pears, and it was with the idea of making the indemnity clause uniform that the resolution in these terms was carried at the last annual meeting. This matter has formed the subject of correspondence between the Council and the Department of Commerce by reason of the fact that the National Fruit and Potato Trades Federation in London had reported to Australia House their great difficulty in the lodgment of claims because of an indem-

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Is a Special Feature of the

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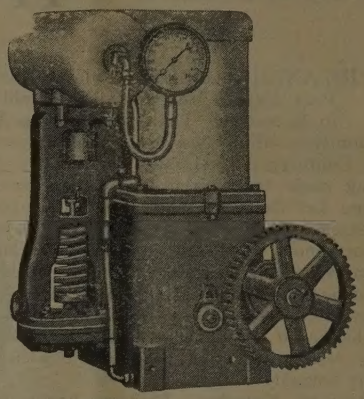
DESIGNED TO DELIVER SPRAY MIXTURE AT ANY PRESSURE UP TO 350 LBS. PER SQUARE INCH.

SINGLE-ACTING TWIN-CYLINDER PUMP, CAPABLE OF DELIVERING 5-10 GALLONS PER MINUTE, ACCORDING TO THE SPEED AT WHICH IT IS DRIVEN.



THE "BUZACOTT" HIGH-PRESSURE SPRAY PUMP (Fig. 450)

SHOW ROOMS
RIGHT OPPOSITE
FLINDERS STREET STATION,
ON RIVER BANK.

This Pump has become extremely popular throughout Tasmania as the ideal unit for the Stationary Spray Plant.
The Fig. "450" Pump illustrated above is the latest type fitted to the popular "Buzacott" Portable Orchard Sprayer.
Post this Advertisement and receive our Illustrated Catalogue of all lines, including Power and Hand Operated Orchard Equipment.

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We manufacture a complete range of sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)
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LIME SULPHUR
WHITE OIL EMULSION
PREPARED RED OIL
BORDEAUX MIXTURE
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SPREADERS (SPECIAL) CASEINATE
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CALCIUM CASEINATE, ETC., ETC.

All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

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nity clause having been signed in Australia of which they were not fully cognisant. This was stated to be disturbing to the trade. So far, we have not been advised that the London office of the shipping line referred to has agreed to the modified indemnity clause. This matter is deemed to be one as between the shippers and the shipping companies.

Sales Tax on Fruit Wrapping Paper.—After much negotiation it is understood that the various State Taxation Offices are agreed that the retrospective charge for sales tax on fruit wrapping paper (prior to September, 1932) should be cancelled. The Federal Cabinet has been requested to include fruit wrapping paper officially on the list of goods exempt from sales tax, thus doing away with certificates. Recently a peculiar situation arose in N.S.W. as a growers' co-operative company was approached for payment of sales tax on fruit wrapping paper used in the packing house. It was understood that if the packing house had acted as a distributor and sold the paper to growers, no sales tax would have been chargeable, but because the packing house had used the paper, making a charge for its general packing service, sales tax was payable. This attitude was resisted, as it would thus have defeated the very object for which the packing house was created.

Apple and Pear Gift Scheme.—The Director of Trade Publicity in Great Britain, Mr. A. E. Hyland, recommends that an Apple and Pear gift scheme be conducted in 1934 on the same lines as with lambs, dried fruits, etc. The idea is that people in Australia can arrange to have cases of fruit delivered to friends in U.K. on paying a sum in Australia to cover the costs, including exchange and delivery, the fruit to be delivered from stocks in England. This matter has been favorably taken up in the several States and preliminary arrangements have been made to conduct the programme.

Advertising Fruit in England.—The advertising of Australian Apples and Pears in England has been conducted along the usual approved lines. Funds were contributed by the export levy, the National Fruit Trade Federation in England, and the Commonwealth Government. This advertising is under the aegis of the Australian Overseas Trade Publicity Committee, which deals with the advertising of Australian dried and canned fruits, dairy produce, as well as fresh fruits. Much valuable work has been conducted by the Director of Trade Publicity in England and his staff.

Concentrated Apple Juice.—The Department of Commerce advised that England was importing substantial quantities of concentrated Apple juice. In 1931, Canadian shipments totalled 176,843 gallons out of a total United Kingdom importation of 536,719 gallons. The latter was an increase over the previous year of 109,517 gallons. It was understood that the figures of 1932 should show a substantial increase.

Bentley's Code.—Messrs. Bentley advised certain additions to their code books of Apple and Pear varieties.

N.S.W. Apple and Pear Export Association.—During the year the N.S.W. Apple and Export Pear Association has been successfully launched. Membership includes growers and exporters with representation of both on the Executive. The constitution is largely along the lines of that of the Victorian Fruit Marketing Association and the South Australian Fruit Marketing Association. While functioning as a separate association, the New South Wales Association maintains its close contact with the New South Wales Fruitgrowers' Federation.

FRESH FRUIT EXPORT.

Australian Apple and Pear Export Council Appreciated.

If Control Board is Desired, Amendments to Act Are Necessary.

THE NECESSITY FOR IMPROVEMENT in the arrangements for the export of Australian Apples and Pears is now freely admitted on all sides. The subject under debate at the moment is whether these improvements can be brought about by voluntary organisation, or if legislation is necessary. The export of fresh fruit must be conducted on an all Australian basis on a co-ordinated programme. The day of individual State arrangements for shipping space has gone for ever. It was because far-seeing growers and shippers saw the necessity for State and interstate organisations that Fruit Marketing Associations have been set up in the several States, these being affiliated with the Australian Apple and Pear Export Council. Credit must be generously given to all those who, in spite of many difficulties, assisted in creating these organisations. Through the conferences of Apple and Pear Export Council divergent interstate points of view have been steadily reconciled, culminating in an agreement to form a Freight Committee of the Council which will be ratified at the Council meeting at Sydney in November, when, in co-operation with the shipping companies, a co-ordinated shipping programme will be adopted. The basis will be accredited forecasts from the several States.

* * * * *

While the aforementioned constructive work was proceeding the 1933 debacle occurred with the late shipments on British markets which has been followed by a demand from several quarters for the formation of an Export Control Board under a Federal Act of Parliament. A conference of Tasmanian fruitgrowers voted in favor of the re-enactment of the 1927 Act; however, when the State Fruit Advisory Board studied the Act, several amendments were found to be imperative, including provision for safeguarding the F.O.B. trade: the Prime Minister was advised accordingly. The Victorian Fruit Marketing Association has adopted for consideration the 1927 Act with some major alterations. This subject is being discussed in the other States when their attitude will be defined.

The 1927 Export Control Act.—The Fresh Fruit Overseas Marketing Act was assented to by Parliament in April, 1927. However, on a poll of the growers being taken, an adverse vote was recorded. It is impossible for a fresh vote to be taken to validate this Act, as sundry alterations requiring Parliamentary sanction are inevitable, in particular, the dates specifically mentioned for certain contracts have expired. Further, clause 19 of the 1927 Act needs revision because of the Australian Oveaseas Transport Association agreement and the provisions under the Australian Industries Preservation Act.

When submitting the Fresh Fruits Export Control Bill to Parliament, the Hon. T. Paterson, the then Minister for Markets, stated that the F.O.B. trade would not be in any way interfered with. Regret, however, was expressed that a clause to this effect was not specifically included in the Act.

Those in favor of export control advocate the drafting of a new bill embodying the desired alterations.

Under the 1927 Act, a Control Board was to have been set up consisting of one member with commercial experi-

The BEST Fruit brings the BEST Prices !

AND *PROPER* SPRAYING BRINGS THE BEST FRUIT.

SPRAY the Gargoyle Way ! Protect your crop, and improve your fruit, Use the *Safe* Summer Spray—Gargoyle WHITE Spraying Oil. It's easy to mix. Does not separate out. Spreads perfectly on the trees. Resists rain. It stays on, and protects.

But Gargoyle White Spraying Oil does more than kill scale and insects. It is produced from highly refined medicinal oils, and it has a beneficial effect on the bark. Its emollient action definitely improves the health of the trees.

Developed...made...tested...and proved in Australia to be what it is claimed to be : the safest and most effective Summer spraying oil—

Gargoyle WHITE Spraying Oil

M37

VACUUM OIL COMPANY PTY. LTD.

ence (to be appointed by the Government), plus six growers,—two from Tasmania, one from Victoria, one from N.S.W. and Queensland, one from S. Aust., and one from W.A., Board members to hold office for two years. The Board was given power to appoint a London agency and to accept such fruit for shipment from growers as was placed under its control. For the purpose of enabling the Board to effectively control the export and the sale and distribution after export of Australian fresh fruits, the Governor-General could by proclamation prohibit export except in accordance with the license to be issued by the Minister subject to certain conditions.

Amendments Proposed by Victoria.—The Victorian Fruit Marketing Association recommends that in any new Bill submitted to the growers, the following be included:—

The Control Board to consist of 8 growers and 4 shippers, as follows:—Tasmania, 3 growers, 1 shipper; Victoria, 2 growers, 1 shipper; W.A. and S.A., 1 grower each, 1 shipper representing these two States; N.S.W. and Queensland, 1 grower and 1 shipper to represent these two States.

To provide for continuity, some members to retire each year.

Present exporters who have not been guilty of disreputable conduct to be entitled to receive a license to export.

The Board to handle only such fruit as is voluntarily placed under its control.

New clauses to be added:—

"This Act shall not in any way affect the freedom of growers to sell fruit on an F.O.B. basis."

"No agent or other applicant for shipping space for the export of fresh fruits shall receive preferential treatment by the Board or its officers in the allocation of space or in any other matter relating to the export of fresh fruits."

"For the purposes of this clause the Board shall be deemed to be an agent in respect to any fruit placed under its control."

"Information disclosed to the Board by licensees in the carrying out of any requirements of the Board shall be deemed to be confidential and shall not be divulged to any person other than the confidential officer of the Board."

* * * * *

Thus, while consideration is being given to the question of a Fresh Fruit Export Control Act, it is certain that the work inaugurated by the Australian Apple and Pear Export Council must proceed for handling the urgent matters arising in connection with 1934 export.

APPLES IN ENGLAND.

Low Prices Ruling.

The English Apple grower is having an unhappy time this season, according to a report published on August 15, in the "Morning Post," London, and sent by courtesy of the Hon. R. Linton, Agent-General for Victoria. A Kentish farmer sent ten bushels of Apples and a bushel of Plums to Covent Garden. The fruit realised 18/-, but after deducting rail freight, charge for use of empty baskets, market expenses and commission, his net return for the consignment was 4d. This grower states that Apples are dropping off the trees and rotting. They're not worth picking.

Opinions expressed in Covent Garden are that the unusually large importations of Apples from Australia had glutted the markets. This has also been a good season for the production of English Apples. English and imported Apples were being retailed at from 1d. to 6d. per lb., according to quality.

STOCKS FROM E. MALLING.

APPLE STOCKS were imported into Tasmania from E. Malling some years ago.

Experiences with these stocks are given by Mr. P. H. Thomas, Chief Horticulturist, Tasmanian Dept. of Agriculture, on September 22, 1933, as follows:—

The following types have been acclimatised and propagated:—Nos. I., II., IV., VII., IX., XII, XIII., XV., XVI. and S.C. Of these, the majority have been worked with the varieties Cox, Jonathan, Cleo., Democrat and Granny Smith, and experimental plantings of the first three varieties have already been made.

Up to the present time observations, of necessity, have confined to the stocks themselves, their ease of propagation and suitability for working under Tasmanian conditions.

Of the ten varieties listed, No. XVI. and S.C. have proved the most vigorous growers, and produced the strongest maiden trees. At the other end of the scale, Nos. IV. and IX. might be placed. The most prolific growers and easily propagated types up to the present time appear to be Nos. II., IX., XII., XVI. and S.C., whilst some difficulty has been experienced with Nos. I. and XV. Nos. I. and VII. it has been noted, are often slow to recover after removal from the stool, though this may be due to some extent to soil conditions.

No. I. has proved to be very susceptible to woolly aphis attack, both on the stem and root. Nos. I., II., XVI. and S.C., were found to root freely after separation from the stool in many instances where no external signs of adventitious roots were apparent prior to removal.

These observations, though of a very general character, are similar in many respects to those made at East Malling, and it would appear that in the initial stages at all events, the altered climatic conditions have not materially affected results obtained in other parts.

Apple Stocks from E. Malling grown in Tasmania.—A section of the stool bed S.C. and No. IX may be seen in the centre.

BACK TO NATURE.

"I don't care if it is a high-class party," hissed the convention hating young husband; "I'm going to be my own natural self!"

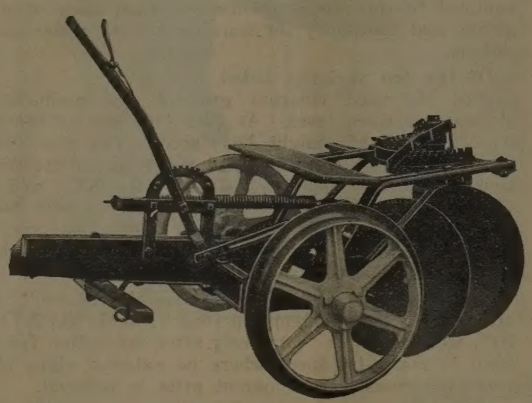
"Very well," said his wife, resignedly, "but if you start tossing coconuts about, I'm going home!"

Harvey Combination

Reversible Hillside Disc Plow

And Orchard Cultivating Attachments

An Implement to Perform Every Job in the Orchard and Vineyard



Side view of the Two-furrow Reversible Hillside Disc Plow.

"Harvey" Orchard Reversible Disc Plow.

DESIGNED AND BUILT EXPRESSLY FOR THE ORCHARDIST, VIGNERON, MARKET GARDENER AND TOBACCO GROWER.

Can be used as a single or double furrow reversible disc plow, and with the necessary attachments can be easily and quickly converted into:—

1—Single or Double Furrow Mouldboard Plow.
2—Spring Tyne Cultivator.
3—Rigid Tyne Cultivator.
4—Two-way Disc Cultivator.
5—Disc Backfiller or High Mounder.
6—Delver.
7—Subsoiler or Hard Pan Buster.
8—Three Tyne Semi-Subsoiler.
9—Irrigation Furrower.

Harvey Two-Plate Depth Regulated Plowing Gang Attachment

. . for . .

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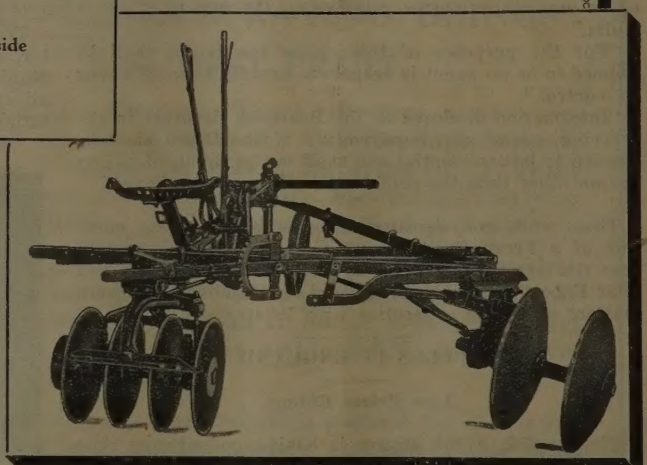

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Western Australia.—Skipper Bailey Motor Co. Ltd., 431 Murray Street, Perth.

South Australia.

SOUTH AUSTRALIAN FRUIT EXPORT.

AN INTERESTING REPORT on the 1933 fruit export season from South Australia was recently furnished to the South Australian Fruit Marketing Association by Mr. G. Quinn, Chief Horticultural Instructor. The statement outlines the method of handling cases on the wharves and in holds. Mr. Quinn expresses the opinion that much good has arisen, and will be further derived from the measures taken to insist on careful handling and storage of the fruit for export.

A summary of the report is as follows:—

The Inspectors of Fruit in this branch, who act as examining officers under the Commerce Act, have maintained a close supervision over the handling of the fruit on the wharves and during the stowing into the ships' holds.

The procedure in this State, briefly, consists of stacking the cases in properly arranged order for inspection in the large wharfside sheds of the Harbor Board. It is then when the hatches are opened—trucked across the wharves and loaded on to trays ingeniously constructed w[illegible] wooden floors and square spreaders, so that when stacked five cases high the hoisting cables are held by the spreaders and prevented from putting any pressure whatever upon the boxes of fruit. That means the hoisting cable at each corner does not close in under the strain of lifting, but hoists directly from above the top of the stacked tray.

The landing place of the tray in the hold is covered with planks after the first layer of cases is spread over the floor of the hold. Planks are also laid down on these cases wherever the workmen have to walk. Roller conveyors are rested upon trestles stood on walking planks. The cases are laid on their sides, and not on the bulged top or bottom. Dunnage for ventilation is used between the layers of cases, and a great variety of sizes of battens are adopted in the different ships, as will be seen from the accompanying observations recorded on all the ships which were loaded at Port Adelaide during the past season.

Although a Customs Act Proclamation gazetted 6/5/20 prohibits the export of fruit which through any defect is likely to arrive at its destination in a deteriorated condition, confers ample powers on the State Supervising Officer to take any action considered necessary to prevent the fruit from being damaged, it was deemed desirable to invoke the wider and more explicit powers conferred by the regulations made under the State law, viz.: "Fruit and Vegetables (Prevention of Injury) Act, No. 1,797 of 1927," to prevent damage being done, and if deemed desirable to take steps to punish any person responsible for causing such damage.

To this end, an inspecting officer was detailed to be present during loading operations during any hour of the day or night. These officers—Messrs. L. M. Brown, E. Leishman, E. W. Revell and N. R. Quinn—have reported from time to time their observations and actions, which being summarised are as follows:—

"The handling of the fruit cases generally is satisfactory, but we find that it is necessary for an inspector to be continually on the move between the sheds up on the wharves and down in the ships' holds to prevent rough handling.

"When the cargo lumpers know they are being closely watched by an inspector, they exercise much more care. Only one or two serious complaints have had to be made during the season to the Stevedoring Company's representatives, who are usually very eager to do anything in their power to see that the fruit goes aboard in good sound condition."

One of the instances referred to was the utilisation by a foreman in the ship's hold of cases of fruit as supports for the roller conveyors—a common practice until three seasons ago, when better handling was enforced. This man was—on our complaint—immediately reprimanded and transferred to other duties by the Stevedoring Company employing him. In their concluding reports, our officers desired to record their appreciation of the cordial manner in which the stevedoring companies had co-operated with them and especially referred to the assistance rendered by the representative of the Adelaide Stevedoring Company at the Outer Harbor, who promptly rectified their every complaint.

They further remark with pleasure that on more than one occasion "we have been congratulated by passengers on the boats interested in the fruit trade on the satisfactory manner in which the fruit was handled and stowed on board ships in South Australian ports. One grower from New South Wales on board the "Largs Bay" declared he had watched the loading in the ports at Sydney, Melbourne and Hobart, and that in none of those ports did the care displayed compare with what he had seen at Port Adelaide Harbor." Evidently he was genuinely impressed as he sought and obtained a copy of the regulations under which care was being enforced at Adelaide.

Total shipments of fruit from South Australia to overseas ports for the period January 1 to June 30, 1933, inclusive were:—Apples, 253,126 cases; Pears, 14,702 cases; Grapes, 2,175 cases; Oranges, 696; Lemons, 117. Of these quantities, London received the largest quota—93,576 cases Apples, 12,834 cases Pears, 320 cases Oranges, and 56 cases Grapes. Liverpool received 49,390 cases Apples, while Hull came next with 33,051 cases Apples, and Glasgow 15,810 cases Apples. Of the Continental markets Hamburg took 28,149 cases Apples, Stockholm 5,498 cases Apples, Germany 4,424 Apples, and Bremen 1,994 Apples; 10,492 cases Apples, 125 Pears, 60 Oranges and 1,421 cases Grapes went to Colombo, and the Netherlands E.I. absorbed 6,148 Apples, 1,154 Pears, 236 Oranges and 442 Grapes. Singapore also received 3,871 Apples, 554 Pears, 72 Oranges, 117 Lemons, and 244 cases Grapes. Small shipments were also made to Straits Settlements, India, China, Egypt, as well as to France and Holland.

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

THE monthly meeting of Executive of the S.A. F.M.A. was held on August 25. Present: Messrs. H. J. Bishop (Chairman), M. G. Basey, R. A. Cramond, D. W. Hannaford, F. B. James, E. S. Mason, R. B. Pritchard, A. O. Peterson, J. B. Randell, G. W. Selth, P. R. B. Searcy, W. W. Miller, M. Vickers, A. R. Willsmore, and the Secretary. Apologies from Messrs. H. N. Wicks and J. S. Hammat.

In response to a letter from the Australian Apple and Pear Export Council, enclosing report on the Apple trade with Canada, it was decided to seek particulars re rate of freight and shipping space. The O.S.R.A. to be asked re freight from Adelaide.

Dr. J. Davidson wrote stating that tar distillate wash would have no value as regards thrips control. Elder Smith & Co. Ltd. forwarded statistics of imports of fresh

STOP THAT LEAK!

The losses caused by Codlin Moth reach a colossal total each year, and greatly reduced profits to the fruitgrower result from orchards affected by this pest. It is the aim of the fruitgrower to proof his orchard against attack from Codlin Moth by covering his fruit with an unbroken poison film, thus ensuring the maximum protection.

The Codlin Moth hasn't a chance to damage the orchard properly sprayed with "Aero" Brand Arsenate of Lead. It has proved the orchardist's surest safeguard against infection, and ensures the fullest yield of clean fruit, and highest market returns.

Leading orchardists all over the Commonwealth have proved the efficacy of "Aero" Brand Arsenate of Lead, and are unanimous in their verdict that it is the finest Arsenate of Lead on the market.

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Davey Street, Hobart.

VICTORIA—
RAMSAY & TREGANOWAN LTD.
469-477 Latrobe Street, Melbourne.

WESTERN AUSTRALIA—
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297 Murray Street, Perth.

fruit to Dutch East Indies and Malay. Mr. G. Quinn sent an interesting report re the 1933 fruit export season.

Mr. J. B. Randell submitted a letter from Batlow, N.S.W., re proposed Export Control Board. Deferred until next meeting.

Mr. H. J. Bishop reported that no satisfaction re fruit freights had resulted from the Australian Overseas Transport Association Conferences. The O.S.R.A. had agreed to the formation of a Freight Committee in each State and a National Committee to secure equitable allocation of the freight available and to co-ordinate shipments to avoid gluts overseas. It was decided to write to the Apple and Pear Export Council requesting the formation of these Committees in each State and to treat the matter as urgent if Committees were to function satisfactorily for the 1934 season.

It was resolved that the estimate for Apples for February next should be 10,000 cases more than the figures submitted for last February. Pears, 10,000 cases.

Mr. J. B. Randell reported that it had been decided to request the Minister for Agriculture to enforce the Plant Diseases Act to prevent the spread of pests from neglected orchards.

It was decided to defer till next meeting the matter of forming a permanent committee to advertise fruits in season.

MID-MURRAY NOTES.

Effect of Cover Crops.

Renmark, 23/9/33.

Some very fine crops of beans have been grown in the settlement this year, which are now being ploughed in or disced according to the fancy of the grower. Since the first irrigation, conditions have been favorable for ploughing, the land drying out slowly through the advent of occasional showers of rain, and when beans have been disposed of the process of nitrification will commence immediately. The process of nitrification seems still to be imperfectly understood by the rank and file of growers, as is instanced by the number of times an argument arises as to the best means of disposing of a cover crop; whether it should be ploughed or disced.

Said Jones to Smith the other day: "If I plough my beans the roots come to the surface, the nitrogen bulbs burst and I lose it." This is not quite the case. In bringing the roots to the surface and the tops underground, the tops are nitrified in three to six weeks according to conditions being favorable, but the roots will still have a considerable nitrogenous value to the vine or tree when incorporated in the soil and becomes in a position where it can be assimilated by the feeding roots. On the other hand, when beans or any other cover crop is disced, the roots are producers of nitrates at an early date, owing to the effect of the nitrogen fixing bacteria attacking them. The tops then become a summer mulch which keeps the soil cool, and in the course of much cultivation is eventually incorporated in the soil in the form of organic matter. In due course this organic matter will become nitrified, but the process will be gradual, and only when sufficient moisture is present and is away from the influence of strong sunlight. So that in the long run it doesn't matter whether a cover crop is disced or ploughed, the ultimate result is the same, insofar as we are accumulating a quantity of organic matter, which is the foundation of soil fertility.

The citrus industry

is undergoing a process of development likely to put fresh heart into growers of this fruit owing to the gradual process of organisation taking place, and the assistance of the Commonwealth Government in guaranteeing a price which will cover out-of-pocket expenses. If the organisation is sufficiently complete it will enable the grower to reap a benefit which is rightly his. The Citrus Growers' Association in South Australia has had a hard fight to obtain control through its co-operative bodies, and has achieved a very notable victory in its endeavor to do business with New Zealand.

Speculative interests are always likely to clash with co-operative interests, and the future of a satisfactory trade lies in the development of the strength of its co-operative bodies, and incidently, with each individual member.

South Australia being the only State in the Commonwealth free from the fruit fly, is the only State permitted to send fruits to N.Z., and this has naturally created a little friction between the other producing States. This attitude is difficult to understand, when it is considered that to relieve the Australian market of a big parcel of fruit means a better market for the remainder.

[Note.—Two other States are entirely free of fruit fly, viz., Victoria and Tasmania.—Ed. "F.W."]

The export of Oranges to European markets has been carried out during the past two or three years wholly by the S.A. Citrus Association in an endeavor to relieve the local market of its surplus fruit.

Victoria and N.S.W. have done nothing in this direction in the past. On the whole, the South Australian organisation is on a fairly firm footing, and on the embargo to N.Z. being lifted, they were able to work through the co-operative bodies in the Murray Valley, Torrens Valley, Salisbury, and Inman Valley, and effect orderly marketing. The overproduction in N.S.W. has led to a general scramble for the Sydney market, leaving the growers little for their work of production.

This has led to a gradual neglect of orchards and general deterioration of fruit, affecting the position throughout Australia generally. Fully realising the untenable position of the industry, it was partly through the efforts of the Member for Parramatta (Mr. Stewart), that the guaranteed price for exports to the United Kingdom was granted.

While the Citrus organisations of S.A. and Victoria, comprising chiefly of units of co-operative bodies, the existing machinery available to guarantee a high standard of quality, the position in N.S.W. was found to be somewhat different. Co-operative bodies of citrus growers being poorly organised, a large quantity of fruit available for export was done by private packers, attracted by the Commonwealth Government's guarantee. It is of the utmost importance to send only the best fruit overseas, and if the quality is not suitable for export, there should be sufficient provision to prevent its export. The industry in Australia to-day is facing the same position that California had to face many years ago, when over-production brought a disorganised market, and a standard of quality had to be maintained.

However, the outcome of their efforts brought into the market that well known "Sunkist" brand of Orange known all over the world for its guaranteed quality. Inferior fruit found its way into by-products, and none but the best carried the imprint of "Sunkist" brand on its skin. It has taken many years to bring this about, cultural practices had to be studied, bud selection from pedigreed trees developed, and a lively interest taken by individuals before the "Sunkist" organisation reached its high state of efficiency.

If we in Australia are to become regular exporters to European countries it will be necessary for us to concentrate on a high quality of fruit.

Realising this necessity, it was suggested by Mr. Stewart that each State should set aside the sum of £5,000 per annum with this end in view.

A great many citrus orchards, at the present time are suffering from a lack of fertilisers, and many contain a percentage of "passengers" which no amount of fertilisers will help in the production of good fruit.

The

re-working of unsuitable trees

might be considered one of primary importance, as, once having a fruit of high quality, an assured market will necessarily follow. The next consideration should be a thorough organisation of growers into groups of co-operatives to eliminate speculative operators, as only by this means is it possible for growers to obtain the full benefit of market values. Many of our primary products are marketed through well organised channels, but this had only come about through the aid of legislative control, and the writer sees hope for the future of the industry when this is done for the citrus industry.—"Nemo."

U.K. Imports of Apples.—British statistics indicate that the United States furnished 39 per cent. of British Apple imports in 1932; Australia 20 per cent., Canada 20 per cent., and New Zealand 7 per cent. Receipts from the United States were 11 per cent. less than during the previous year, and those from Canada 9 per cent. less, while shipments from Australia increased 63 per cent. and those from New Zealand 40 per cent.

"Black Leaf 40"

Death to Aphis (Plant Lice) and Other Insects

Aphis and other insects are common enemies of the orchardist and gardener. Protect your trees, vines and plants with "Black Leaf 40."

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"Black Leaf 40" is recommended for killing wooly aphis, apple aphis, peach aphis, aphis on roses, other flowers and vegetables, mussel scale (young), Harlequin fruit bug, holy or cross bug, oleander scale (young), San Jose scale (young), red scale (young), red mites (Summer), rutherglen bug, pear and cherry slug, thrip, fine scale (young), pea mite.

In the Poultry Yard

Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40;" spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

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"Black Leaf 40" has a dual action. It kills plant insects both by fumes and by contact. This double-killing action makes "Black Leaf 40" unusually effective in insect control.

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"Black Leaf 40" is registered by us in Australia and New Zealand as a Trade-Mark and Brand. Users are familiar with the red labelled packages and the black leaf design prominently displayed thereon. Beware of imitations. Insist upon genuine "Black Leaf 40," made only by Tobacco By-Products & Chemical Corporation.

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THRIPS INVESTIGATION.

No Outbreak of Thrips Expected this Season ∴ Insecticidal Repellant is Sought

Good Progress Reported at First Annual Meeting.

THE ANNUAL MEETING of the Thrips Investigation League was held at Melbourne on September 26, Mr. J. W. Bailey presiding. There was a large attendance. The Chairman, in introducing Dr. J. Davidson, said the work of thrips investigation was proceeding on sound lines. Much patient and tedious work had to be attended to. He congratulated Dr. Davidson and his fellow workers, including Professor Wadham (Melbourne University) and his staff. He urged growers and business men to contribute generously to the finances.

Dr. J. Davidson, Entomologist, Waite Research Institute, Adelaide, who is in charge of the thrips investigation work, reported as follows:—

First Annual Report.

I. Introduction.

The occurrence of widespread thrips infestations over the southern States of Australia has been recorded at intervals during the past 25 years; the last outbreak occurred during the spring of 1931. These infestations are associated with a marked reduction in the Apple crop in the years concerned.

In 1932 growers, merchants and others interested in the fruit industry formed a "Thrips Investigation League," in order to stimulate interest in research in the thrips problem. The League approached the Commonwealth Council for Scientific and Industrial Research, and agreed to contribute £1,200 a year for three years in order that the research being carried out by existing organisations might be extended. As a result of this financial support, a more detailed investigation has been started as a co-operative enterprise between the Council for Scientific and Industrial Research, the Waite Agricultural Research Institute of the University of Adelaide, certain of the State Departments of Agriculture and the Thrips League.

The enlarged research programme was commenced in November, 1932. A certain amount of preliminary work on the problem had already been carried out by Mr. J. W. Evans, one of the entomologists of the C.S.I.R., at the Waite Institute and in Victoria. The results obtained proved to be of considerable assistance when the more extensive programme was being drawn up.

II. The Problem.

The programme consists of an investigation of the Apple thrips (Thrips imaginis Bagnall) and associated species of blossom and flower thrips, particularly with reference to their economic importance in relation to orchard and bush fruits.

Thrips imaginis is an insect native to Australia. In some years it occurs in epidemic numbers during the spring months and causes serious damage to blossom and certain fruits. Apples, Strawberries, Raspberries, Loganberries, and to lesser extent, Plums, Apricots, Peaches, Cherries and vines may all suffer a serious reduction in crop, due to infestation by thrips.

T. imaginis is widely distributed in Australia, ranging from Queensland to Tasmania and across to Western Australia. However, severe outbreaks of this species of thrips are generally confined to the south-west portion of Western Australia, South Australia, Victoria, and portions of New South Wales.

Certain other species of thrips such as the onion thrips, "Thrips tabaci," and the blossom species, Isoneurothrips australis, also occur in numbers at times. Observations are therefore being carried out on certain associated species.

III. Organisation of the Investigation.

The investigation has been placed under the direction of Dr. J. Davidson, head of the Department of Entomology at the Waite Institute. For the present the more important lines of work are being carried out in South Australia and Victoria. When suitable progress has been made, it is intended to extend the work to Western Australia. It was considered desirable to concentrate the work in the two former States in the early stages of the investigation, and the results obtained will have a general application to other States.

Certain aspects of the work are being developed at the Waite Institute, and Mr. J. W. Evans has been attached to the Entomology Department in this connection. F. W. Cooke has been appointed as laboratory assistant. Mr. H. W. Wheeler, B.Sc., was appointed as chemist in May, 1933, to assist with the insecticides aspect of the work. A laboratory has been fitted out specially for the thrips work, the cost being borne by the University of Adelaide.

The Horticultural branch of the Department of Agriculture of South Australia is assisting with certain details of the field work, and through the courtesy of Mr. G. Quinn facilities have been granted for observational and experimental work at the Government Orchard, Blackwood.

Certain growers have offered facilities for experimental work in orchards. In particular we are greatly indebted to Mr. N. Wicks, of Balhannah, for the many facilities which he has offered for work to be carried out in his orchards.

Other aspects of the work are being developed in Victoria. Mr. H. G. Andrewartha, M.Ag.Sc., has been appointed as entomologist, and commenced duty on March 1, 1933. Mr. Andrewartha has had experience with the thrips problem in Western Australia, and after spending a month at the Waite Institute, he was able to commence work in Victoria last April.

Miss H. V. Steele, who has been studying thrips during the past year at the School of Agriculture of the University of Melbourne, was appointed in May, 1933, to assist in the entomological work.

Through the courtesy of the University of Melbourne, this unit has been given laboratory and other facilities in the School of Agriculture. This helpful arrangement is greatly appreciated, and the workers have the advantage of the advice of Professor S. M. Wadham, who is taking an active interest in the investigations.

The Department of Agriculture of Victoria is assisting with certain aspects of the field work, and Mr. Andrewartha is keeping in close touch with the officers of the Horticultural Branch, and the entomologists of the Department.

A number of growers in Victoria have offered facilities for experimental work to be carried out in their orchards.

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Mr. H. G. Sutton, Director of Agriculture of Western Australia, forwarded a report relating to investigations made on the Apple thrips problem in that State, during 1931-1932. It contains much useful information which has a direct bearing on our first year's work. It is hoped that by the spring of 1934, it may be possible to extend our work into Western Australia.

IV. Progress of the Investigations in 1932-1933.

The present report gives a brief survey of the work carried out up to the end of August, 1933, and the bearing of the results obtained on the thrips problem.

Daily records have been made throughout the year, of the numbers of thrips present in flowers and blossoms in the Adelaide district. Similar observations have been made in Victoria, but the records are not complete for that State, owing to the shorter period during which systematic records have been made.

During the winter period in South Australia the numbers of thrips are small. In general, over the southern part of Victoria, they will be even smaller, owing to the lower temperature.

The potential increase in spring depends chiefly upon the number of thrips in the previous autumn, and the weather conditions during the winter. In the years when these factors are favorable, thrips may appear in plague numbers during spring and early summer.

The records obtained throughout the year have been correlated with meteorological data. The close association of the latter with fluctuations in the numbers of thrips has been clearly shown. The results of these observations were published recently (J. W. Evans, Journ. C.S.I.R., August, 1933, pp. 145-159), so that it is unnecessary to discuss them in detail in this report.

These studies will enable us to understand the reasons for the appearance of thrips in large numbers in certain years, and relatively small numbers in other years.

From the analysis of the data now available, it appears that it may be possible, each year, to predict before the spring months, whether an outbreak of thrips may occur.

The technique in connection with making the records is now a routine matter, and the latter are being continued for the three years, so that the records for each year may be compared.

From the records obtained during 1933 in the Adelaide district, it is evident that a thrips infestation will not occur in South Australia this spring.

The presence of thrips in flowers of weeds, such as "Cape weed," "Salvation Jane," and other plants, illustrates their importance as breeding places. They show that thrips multiply freely in situations outside orchard areas. In a potential thrips year, the insects emerge from pupae in the soil on most days in spring; during warmer spring days, they emerge in large numbers and invade the orchards, being attracted by the fruit blossom. Records show that there is a marked increase in the numbers of thrips in early spring blossom when shade temperatures first reach 68 deg. F. This is due to the emergence of the first spring generation.

It is clear, therefore, that any treatment of the soil in the orchard will have little influence on the thrips population in the orchard.

In the case of Apple blossom, control measures must aim at protecting the buds or blossom against invasion by the thrips, during hot days (shade temperature 77 deg. F. or over), when the insects are more active and abundant.

Vines and berry fruit blossom present different conditions, since these plants continue flowering into November and December, when longer spells of hot days are experienced.

Precise information regarding the development and activity of the important species of thrips, in relation to temperature and moisture (humidity) will be helpful in the development of control measures. Laboratory experiments on the biology of these insects are being carried out. It has been shown that the Apple thrips (Thrips imaginis) completes its life cycle in 12-13 days at a temperature of 70 deg. F. The blossom thrips (Isoneurothrips australis) takes 12-17 days. From data at other temperatures, it is evident that the higher temperatures are more favorable for the former species than for the latter.

The adult thrips may live for long periods in sheltered situations. At room temperatures, three females of T. imaginis lived for 84-103 days. Therefore they may remain more or less dormant during the winter period, this being one method of overwintering. Experiments are being made on the survival of pupae in the soil at various temperatures and with various degrees of soil moisture.

It is evident that effective reduction of the thrips population is impracticable, owing to the widespread area over which they occur.

The practical solution of the problem appears to be in the development of suitable insecticides which will protect the blossoms during critical periods. In the case of Apple trees, these periods are restricted to a few hot days, generally in October.

During the spring of 1932, preliminary tests were made with certain dusts and sprays. Unfortunately, owing to cold weather in October, the work was curtailed. An account of these tests was published recently (Evans, J. W., Journ. C.S.I.R., May, 1933, pp. 99-102).

Insecticidal Repellants Successful.

Of the materials used, pyrethrum powder incorporated in a dust gave promising results. When mixed with sulphur in the proportion of 1 part of pyrethrum to 10 parts of sulphur, thrips present in treated blossom were either killed or driven out; and the dust retained its efficiency as a repellent for two days.

Pyrethrum powder consists of the crushed, dried flower heads of three species of chrysanthemum, chiefly the species C. cinerariaefolium. Its toxic properties are due to two esters known as pyrethrin I. and pyrethrin II. The former is ten times as toxic as the latter, and the amount of this ester present in the powder is the best index of its toxicity. Pyrethrum powder loses its effectiveness on exposure to sunlight and air, due to photochemical change in the pyrethrins. This is an important consideration as regards its efficiency against thrips. Mr. Wheeler has made some experiments to find out how long pyrethrum retains its effectiveness when exposed to direct sunshine. The following table shows the values of pyrethrin present at intervals over a period of 45 hours' exposure to the direct sun. The test was made at the Waite Institute during August, 1933.

Hours exposure.	% Pyrethrin I.
0	0.20
1	0.15
2	0.12
4	0.076
8	0.043
25	0.040
45	0.038

Pyrethrum does not decompose so quickly when not in direct sunshine. When the powder was exposed in the ordinary daylight in the laboratory, the pyrethrin present after 25 hours was found to be 0.12%; this corresponds to the analysis after two hours in direct sunshine.

A number of tests have been made with dusts containing pyrethrum as the active principle and various materials such as sulphur, hydrated lime, kaolin, etc., as the carrier.

(Continued on page 583)

? ? ? ? ? ? ? ? ?

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Brown Rot in Peaches.

Goulburn Valley Fruit in Sydney.

(By S. Fish, M.Agr.Sc., Assistant Plant Pathologist, in "Journal of Agriculture," Vic.)

THE SYDNEY PEACH MARKET offers a profitable outlet for market varieties of Peaches grown in the Goulburn Valley, provided that the Peaches reach the market in a firm sound condition, and remain sound for a period of five days from arrival. Usually about 170,000 cases of Peaches are sent from the Goulburn Valley, but approximately 107,000 cases were sent last season. Gluts, due to an over-supply of firm, choice Peaches, have not occurred, at least not during the last ten years. There may have been congested market at times when the fruit arrived in an over-ripe condition, or where it showed deterioration from other causes, but this state of affairs has been partly eliminated where the practice of pre-cooling and ice-trucking of fruit is adopted. Firm, sound Peaches may be cool-stored in Sydney, and thus congested week-end supplies may be properly regulated.

It is the general opinion of the agents and of Mr. D. G. Wills, market representative of the Goulburn Valley growers at Sydney, that the limits of this market have never been exploited, because at no time has there been sufficient firm, sound, choice fruit sent across to test it out. It is stated by the trade that in a normal year only about 25 per cent. of Goulburn Valley fruit could be considered choice. By this is meant Peaches picked at the right stage of maturity, carefully graded, and packed in a satisfactory manner.

The Murrumbidgee area of N.S.W. has planted almost purely canning Peaches, and cannot be considered as a serious competitor of Goulburn Valley growers, either at the present, or, apparently, in the future. Growers in this area send to the Sydney market Elberta Peaches, which arrive about ten days before Goulburn Valley Elbertas. They send, also, those Pullar's Cling Peaches which are too small for caninng purposes. Apart from these two varieties, practically no Peaches are sent.

The first variety of Peach to reach Sydney market from the Goulburn Valley is Hales, and these are followed closely by Zerbes, which are on the increase from year to year. These Peaches come on a clear market, and if in a sound condition, will sell readily at 10/- to 12/- per case, or more. The Elberta Peaches then follow, and, provided that the grower does not send them too immature, they will ripen up without the presence of the bitter flavor which develops in Elberta Peaches picked too green. This variety clashes to some extent with the New South Wales Elbertas, but not to a serious degree. For instance, 5,000 bushels of Goulburn Valley Elbertas would arrive with about 1,000 bushels of Elbertas from the New South Wales areas. The Nichol's Orange Cling Peach then comes forward for about two weeks. These are followed by Palmerston, Sims, and Goodman's Choice varieties. The two last-mentioned varieties have a very short life, and become over-ripe very quickly. They are very poor market varieties. Pullar's Cling Peaches follow. This Peach has a reputation of being a good carrier. In past seasons up to 10,000 cases of this variety have been shipped from Sydney to Darwin and other northern ports. This trade has never been properly exploited.

Enough has been said to indicate the possibility of the Sydney market for Goulburn Valley fruit, provided that firm, sound Peaches of good quality are sent, and provided, also, that their life is not prematurely shortened by the onset of Brown Rot.

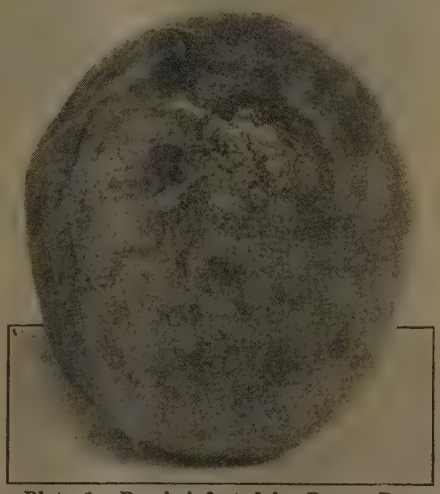

Plate 1.—Peach infected by Brown Rot.

During last season, unfortunately, there was a very severe outbreak of Brown Rot, and a large proportion of the 107,000 cases of Peaches sent from the Goulburn Valley to Sydney developed this disease during the journey, and were showing serious damage with this disease on their arrival at the market.

Peaches which were pre-cooled and forwarded under cool transport conditions sometimes showed only slight Brown Rot infection on arrival, but when the cooled fruit was exposed to the prevailing temperatures of the market, the disease developed rapidly. This occurred when the Peaches were in the hands of the agents, buyers, and consumers. This state of affairs eliminated the operations of the better type of buyers, who generally operate on about 45 per cent. of the Peaches, and this fruit was "thrown back" on to the poorer buyers, who obtained it at their own prices.

In order to arrive at a fairly accurate estimate of the losses caused by Brown Rot last season at the Sydney market, a detailed examination was made of the prices received for all consignments of Peaches received throughout the season by an agent who handled 8,000 cases. This showed 4/6 per case to be the average obtained, and this figure could be accepted as a reliable estimate of the average return to the agents of the whole of the Goulburn Valley Peaches sold in Sydney last season.

Production Costs.

The cost of production of Peaches was investigated in detail by the Development and Migration Commission, and in the report relating to the canned fruits industry of Australia, published in 1929, it was stated that, to meet costs of production and allow the grower a reasonable margin, a return of £9/10/- per ton for canning Peaches was necessary.

The cost of production of true market varieties, such

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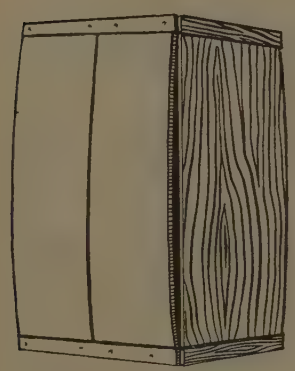

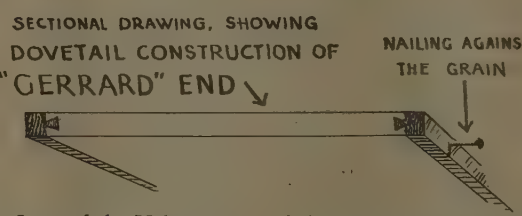

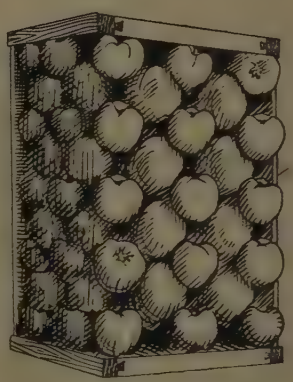

Some of the Main Features of the Gerrard Patent Box.

1—Owing to the cleat on the end being let in against the grain the board cannot warp, twist or split.
2—For the same reason the ends are stronger than one piece natural timber.
3—The number of pieces forming the ends can therefore be increased without in any way impairing the strength of the boards.
4—With the Gerrard ends you nail against the grain. Because of the cleat let in against the grain a Gerrard box has not only the top and bottom nailed on against the grain but the sides also. Nails cannot be drawn out, and the process of nailing actually still further strengthens the already strong end by nailing the cleats on to the boards forming the end.
5—Owing to the enormous strength of the ends they can always be reduced in thickness, thus giving a lighter box, which is very important where freight is charged by weight.
6—The Gerrard end will take a 3-in. nail without splitting.
7—The Gerrard end is undoubtedly stronger and superior in every way to the ordinary case, and has been proved a commercial success in shipping fruit to various parts of the world.
8—The saving to the growers by using the Gerrard Patent end is enormous, because when receiving their boxes in shook form the risk of waste from split ends is entirely eliminated.

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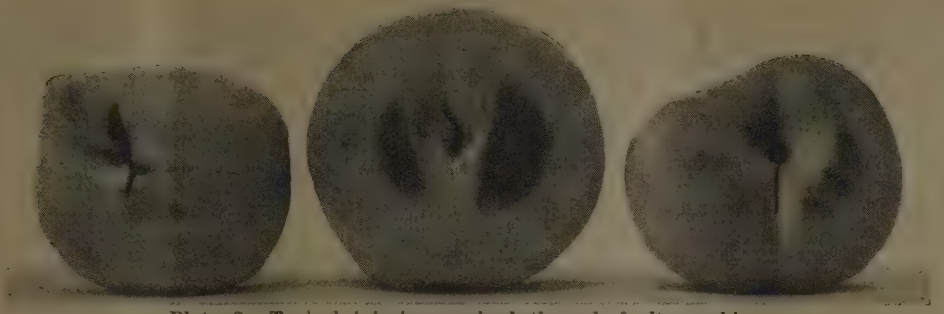

Plate 2.—Typical injuries received through faulty packing.

as Highs Early or Zerbe, is considerably higher than that of canning Peach varieties, because the yield of the former is substantially lower than that of the latter.

Leading growers compute their costs of production of white flesh market varieties at about £12 per ton, and Elbertas and Nichols at about £10. Considering the Peach varieties sent to the Sydney market throughout the season, the average cost of production, on a conservative basis, could be put down at approximately £10/10/- per ton.

The costs against a one-bushel case of Peaches on its arrival at the agent's stand are as follow:—

	s.	d.
Cost of production, £10/10/- (50 bushel-cases per ton)	4	3
Cost of case, picking, grading, carting	2	0
Freight and handling charges	1	9
Commission, 7½ per cent., with minimum charge of 6d.	0	6
	8	6
Average price obtained per case by agent	4	6
Loss per case	4	0

Thus the sending of 107,000 cases of Peaches to the Sydney market last season resulted in a loss to the Goulburn Valley growers of about £20,000. This severe loss was due entirely to Brown Rot.

Development of Brown Rot.

With the object of analysing the position, an experimental investigation was initiated on the factors which determine the development of Brown Rot in Peaches, which were forwarded to the market under cool transport conditions. In this article it is proposed to discuss briefly certain points of practical importance which were the outcome of last season's work.

In every case the Brown Rot infection which developed during cool transport could be traced to some definite injury which the Peaches had received at the orchard. This observed fact was verified experimentally by actually inoculating Peaches in standard injuries prior to transport. The time taken to initiate Brown Rot was found to vary according to the delay between picking and precooling.

It is thus obvious that every care should be taken to discard any Peaches at the packing table which show any visible injury.

The Brown Rot development which occurred after the cooled fruit was exposed to the prevailing market temperatures was of a two-fold nature as regards the origin of the infection—(a) that which occurred in any injuries which the Peaches had received during transport, and (b) that which occurred through the uninjured skin of the Peach when over-ripe.

The injuries which are produced during transport are caused by faulty packing of the Peaches, and to the vibration incidental to the 500-mile journey to the mar-

Plate 3.—Showing how a light, corrugated board lining accommodates itself to the pressure exerted by Peaches against the side of the case.

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Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features, with a host of others, was **THE "MONKEY" GRUBBER.**

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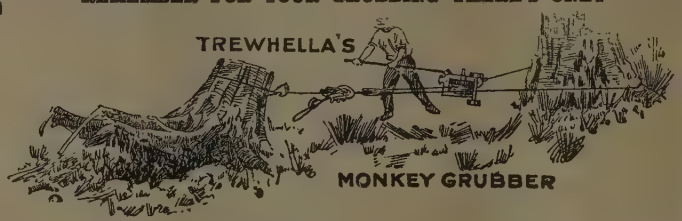

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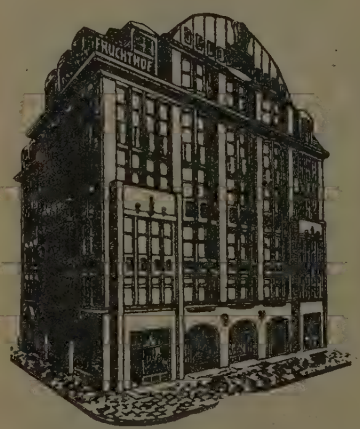

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ket. The injuries observed were caused by the pressure of the Peaches against each other and against the sides of the case. This pressure caused a slight injury or split to the skin in the "crease" of the Peach. (See plate 2.) In some cases examined it was found that 25 per cent. of the Peaches were injured in this way.

The Brown Rot development which occurred in such injuries was comparable to that obtained by artificially inoculating Peaches on their arrival at the market.

To minimise this type of infection steps should be taken to utilise all the means available to prevent this class of injury. The use of corrugated board lining for the case would be very helpful.

The Brown Rot infection which occurred in uninjured Peaches when they were nearing the end of their natural life is important, since, if the remaining life of the Peach on reaching market is short, this type of infection may occur before the Peaches are consumed. To permit the operations of the best type of buyers—the country forwarding agents—Peaches must remain sound for a period of about five days when held at ordinary ripening temperatures. By that time they are generally consumed.

The time of initiation of this Brown Rot infection varies with two factors—the stage of maturity of the Peaches on arrival, and the spore dosage on the surface of the Peaches. The spore dosage on the Peaches apparently varies from orchard to orchard and from year to year. Until last season little trouble was experienced with Brown Rot development in Peaches which were pre-cooled and forwarded to Sydney under cool transport conditions, even though the Brown Rot disease was present to some extent each year in a number of the orchards in the Goulburn Valley. Last year, however, Brown Rot assumed epidemic proportions at blossoming time, and the spores were carried through on to the maturing fruit. It was the most severe outbreak yet experienced in this area.

Definite experimental evidence obtained proved that the heavier the spore dosage or load on the surface of sound Peaches, the shorter is the infection period and the higher the percentage of Peaches infected with Brown Rot in a given time. It was shown, also, that the more mature the Peaches the higher the percentage of Brown Rot infected Peaches in a given time.

In order to provide for the maximum Peach life at market temperatures, so that the onset of Brown Rot will be delayed sufficiently long to permit consumption, attention should be given to the following points:—

(a) Pick the Peaches at the correct stage of immaturity compatible with market requirements;

(b) Reduce as far as is practicable the delay between picking and pre-cooling;

(c) Pre-cool the Peaches to 32 deg. F., and forward in refrigerated cars throughout the whole of the journey.

In order to reduce the Brown Rot spore concentration on the surface of sound Peaches at the orchard, the present available methods which are known to cause some reduction in Brown Rot fruit infection should be practised, such as the destruction at pruning time of dried diseased fruits ("mummies") and infected twigs. This should be supplemented, apart from the usual Bordeaux mixture applied for Peach curl control, by fruit protection spraying with lime-sulphur or ammonium polysulphide. The latter spray may be applied very close to picking without leaving a noticeable spray deposit.

Every effort should be made during the picking, grading, and packing operations to prevent the contamination of sound Peaches by contact, direct or indirect, with infected fruit.

APPRECIATION FROM SHEPPARTON.

Editor, "Fruit World."

Sir,—I herewith have much pleasure to enclose my cheque for £1/10/6, being four years in advance sub. to "Fruit World." I wish to congratulate you on the high standard of excellence that you maintain in that valuable publication, which must be of very great interest to all interested in fruit culture, especially the articles on manurial experiments and cultural methods which are always an inspiration.

Owing to inadequate drainage, the citrus industry is on the wane in this district; we find we can do better with the pome fruits. Pears produced in the Goulburn Valley have a high reputation on all markets, and it would be difficult to be excelled. Fruit agents tell us that the quality of our Pears on the Sydney markets stands alone. Canning Peaches and Apricots are next to Pears; but the infestation of brown rot in these of recent years has been an increasing worry for growers to control. Most of the district production—Apricots, Peaches, Pears, Plums, Quinces, Melons—is absorbed by our Shepparton cannery, whose products have now gained a very high reputation both in Australia and overseas; they now process the largest pack in the southern hemisphere. With all best and good wishes.

Yours sincerely,
CHAS. J. NASH.
Orchardist, Shepparton E., 2/9/33.

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"Inhuman brutes!" muttered the Shakespeare tragedian, removing the unsound fruit from his clothes.

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TRAVEL INTERSTATE BY SEA

TASMANIA.

FRUITGROWERS' CONFERENCES IN TASMANIA.

THE ANNUAL CONFERENCES of Tasmanian fruitgrowers under the auspices of the State Fruit Advisory Board, were held at Launceston and Hobart in September. Mr. B. J. Pearsall presided.

The Conference was officially opened by Mr. J. B. Mills, President Australian Apple and Pear Export Council, who spoke of the necessity of interstate co-ordination in arranging fruit shipments. The fruit industry had been placed in an invidious position. It was the only industry, he said, that was compelled to charter ships on guarantee and break its market in doing so. It was necessary to form a Freight Committee of the Australian Apple and Pear Export Council. The various States were agreeable to this procedure.

The annual report of the chairman dealt with the activities of the Apple and Pear Export Council; new markets for fruit; amendment of the Australian Overseas Transport Association Agreement. The Board favored having a representative in England, but finance was not at the present forthcoming. The system of having selected agents in Brisbane and Sydney was working satisfactorily. A visit from delegates from the Brisbane selected agents to Tasmania in March was appreciated. The majority of claims on s.s. "Argyllshire" had been paid; a Committee was pressing for settlement of claims for Pears on s.s. "Buteshire." At the suggestion of the Agent-General in London, a special Committee had been set up to draft improvements in insurance agreements to give growers the fullest possible cover. The Board approved of the proposal for advertising Tasmanian Apples on the mainland provided sufficient financial support was received from growers. The services of Mr. T. Burnaby as wharf representative were esteemed. It was hoped to have a representative at Beauty Point in 1934.

Continuing, the chairman stated that the Department of Commerce advised that the stacking of cases 18 high was detrimental. Inspectors were instructed that where dump cases were ten high and pine cases over eight high, suitable dunnage must be placed between the cases. During the peak period, high stacks were unavoidable; it was hoped that with the completion of the new pier, this would be obviated next season. With regard to fruit cases, the Board did not think the time opportune for deciding on one type of case for Australia, but that the dump and Canadian bushel were satisfactory. The O.S.R.A. had directed attention to the large quantity of fruit shipped in unseasoned cases. The Pear case 18 in. x 8 in. x 11½ in. was recommended. Although there appeared to be some prejudice against unrefrigerated shipments, and while the "Thermopylae" cargo was not so successful, it has been proved that Cleos., French Crab, Dunns and Sturmers could be shipped without refrigeration. The request for a bounty on evaporated Apples was not agreed to by the Federal Government. With regard to overseas freight the Board was emphatic that a 25 per cent. reduction was imperative.

There were animated discussions at the Conferences. It was resolved that the Federal Government be asked to support an insurance scheme for growers to cover growing and marketing expenses; to request the restriction of export of cracked or scored Apples of the varieties Ribston Pippin, Cox's and Dunn's; that when the Commonwealth export totals 5,000,000 or over, the "plain" grade be eliminated. The fact that an unnecessary number of cases landed in U.K. in bad condition, was deplored. It was decided to urge that the holds of all steamers be made suitable for carrying fruit and fitted with self registering thermometers. Further, that every effort be made to arrange a suitable programme without recourse to vessels carrying 100,000 cases or over.

Export Control Board.—There was a considerable discussion on the desirability or otherwise of an Export Control Board, diverse views being expressed. It was finally decided to request the Federal Government to resubmit to the growers the Overseas Fresh Fruit Marketing Act of 1927.

Shipping Agreement.—On the motion of Messrs. H. A. Court and L. Taylor, it was decided to request in the

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matter of the A.O.T.A. Agreement that the clause having reference to the limitation to the Tasmanian shipping agents be deleted, thus giving growers the right to apply for their own space.

Inspection of Fruit.—On Mr. Taylor's motion, it was decided to request an increase in the inspection staff: three to be travelling inspectors, one in the north and two in the south, with authority to inspect fruit in orchard packing sheds and in transit.

On a close vote it was decided that instead of holding two conferences, one at Hobart and one at Launceston, one general conference be held at a place to be arranged.

EXPORT CONTROL BILL.

Amendments Necessary.

At a combined meeting of representatives of the Tasmanian State Fruit Advisory Board and the Agricultural Bureau, the proposed Export Control Bill was fully discussed. It was further decided in forwarding the 1927 Act to the Federal Government that a covering letter be sent outlining several amendments including provision for continuance of the f.o.b. trade.

Reworking Fruit Trees.

Mr. P. H. Thomas, Chief Horticulturist, Department of Agriculture, Hobart, Tas., writes as follows:—

The system which is known as the "plug" graft has been used rather extensively this season, following results obtained by Mr. F. Page during recent years at his Huonville orchard.

A large number of growers who have adopted it, however, are dissatisfied with the "take," as in the majority of cases a large percentage of misses have occurred, and it is problematical just how much the tree will be affected by the numerous wounds made during the process.

Following the losses experienced in this State under the old methods of reworking owing to wound infection by polystictus versicolor, a number of methods have been exploited in order to minimise the risks of injury from this disease. At present four different methods are being practised, viz.:—(a) Tongue grafting method; (b) budding method; (c) side grafting; (d) plug grafting.

Both (a) and (b) have been successfully employed where trees are healthy and making fair growth. In both cases no fractures from the main stem have been experienced even when heavy crops of fruit are borne on the resultant laterals.

In both instances the trees are stripped of all growth, deheaded to approximately 1¼ in. diameter wood. The resultant new growths are thinned and either budded or grafted the following season.

Regarding (c) and (d): these methods must be regarded as in the experimental stage. There is no doubt successful takes have been obtained under both systems, but we have insufficient evidence at present to be able to recommend them.

I have noticed in the American press that in some instances where the plug graft has been employed, severe fractures have ultimately been experienced when the resulting growths were called upon to bear a fairly heavy crop of fruit.

Under each system waterproofing materials such as grafting wax, bitumen, thick bitumen emulsion (Colas), and heavy petroleum jelly have been employed successfully.

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At a subsequent meeting of the State Fruit Advisory Board, Mr. H. A. Court submitted a detailed report regarding the conference with the A.O.T.A., and was cordially thanked.

Decided to recommend that the Australian Apple and Pear Export Council meeting be held during the first half of November and not earlier than November 15.

CANADIAN APPLE-GROWERS.

Direct Action Against Low Prices.

Direct action is being taken by the growers of British Columbia against the alleged unfair prices for fruit. Eighty per cent of their members recently refused to pick Apples unless they are granted 1 cent per pound. According to a cable message from Vancouver on September 12, pickets were blocking the bridges in the Okanagan Valley and had stopped trucks bearing fruit from unpledged shippers, forcing them to be returned to the orchards. Independent shippers were blamed for the crisis in the industry, which is worth £10,000,000.

Orchard Notes for October.

Helpful Advice from New Zealand.

Pip Fruits.

WHEN THESE NOTES reach growers in the earlier districts, the calyx spray for codlin moth will have been applied or will be in the course of application. In later districts early November should see this operation completed. Some growers, especially in Otago, have not yet realised the necessity for this spray, and often delay it until the eye of the young forming fruit is closed. In Otago the delay may be safe in some seasons, but a season occasionally occurs which upsets all calculations, with disastrous results. Moreover, seldom is it unnecessary to apply a spray at this period for other pests and diseases; indeed, it is generally necessary to apply it as soon after blossoming as possible so as to lessen the time which has elapsed since the pink spray. The addition of arsenate of lead, therefore, is a very small item, and will act as an insurance.

With the calyx spray a 1½ lb. powder arsenate of lead per 100 gallons of water for the control of codlin moth may be combined other insecticides and fungicides. If control of leaf-hopper is necessary, include I pint of nicotine sulphate. Bordeaux mixture, 3-4-50 (3½-2-50 if hydrated lime is used), or lime-sulphur, 1 in 120 to 170 according to the strength (sulphide sulphur content) of the material purchased, will be necessary if black-spot is troublesome; of the two, lime-sulphur is preferable on varieties subject to russet, or if either powdery mildew or red mite is a factor.

Later sprays will probably consist of applications of arsenate of lead, 1½ lb. per 100 gallons water, lime-sulphur, 1in 120 to 170, and a finely divided sulphur, 2 to 5 lb. per 100 gallons, according to the article used. It will be necessary to make these applications at intervals of ten days to three weeks, according to locality and necessity. By including spreader at the rate of ½ lb. to ¾ lb. per 100 gallons in each application, efficiency is greatly increased. The addition of 4 lb. to 6 lb. of hydrated lime to the 100 gallons of wash will considerably reduce any liability to burning of the foliage.

In the event of red mite infection becoming serious, the addition of 2/3 gallon of winter oil to 100 gallons of the mixture will prove very effective. The use of "summer" or so-called "white" oils, although effective against red mite, must be restricted to applications at such times when there is no residue of sulphur or lime-sulphur on the trees, and neither of the latter should be applied for some weeks after the trees have received an application of a summer oil.

Stone Fruits.

For the control of brown-rot and other fungi lime-sulphur 1 in 120 to 170 (according to strength), will probably have been applied at petal-fall. Another application is advisable as soon as the calyces have fallen from the young forming fruit. When peach green aphis first makes its appearance, add nicotine sulphate, 1 in 800, to the lime-sulphur. As nicotine sulphate is in itself inert, it requires such substances as arsenate of lead, Bordeaux, lime-sulphur, or soap to liberate the nicotine, which is the actual killing agent; therefore, if it is to be used alone, add 2 to 4 lb. of soap per 100 gallons of wash. The effectiveness of nicotine lies in its volatility, and as it becomes more volatile with increasing heat, more effective work is done with this spray in hot weather.

Leech on Cherries, Plums, and Young Pear Trees.

With the first appearance of leech eggs on the leaves, an application of arsenate of lead, 1½ lb., and spreader, ½ to ¾ lb., per 100 gallons of water, should be made. At this time the fruit is not far advanced, and is not likely to have its appearance spoiled by the spray, especially if a spreader is used. This spray gives a good coating to the earlier developed leaves, which will remain for a considerable time. Through the maturing and picking season a spray on a still day directed not at the tree but upwards in the air above it, so that it will fall like a mist on the tree, will afford additional protection to the older leaves, also some will fall on many of the young leaves, while very little will be deposited on the fruit. The leech grub does not remain on one portion of the leaf or even on the one leaf, but travels to a number, and is liable to be poisoned before it has moved very far. Much injury has been done to Cherry trees by neglecting the control of leech during the season when the fruit is on the trees, and considerable protection of the foliage has been achieved with a very light mist in the manner described without disfigurement to the fruit.

Cultivation.

Where the soil has been worked down to a good tilth harrowing, with an occasional heavier working with cultivator and disc, especially after heavy rain or irrigation, will be the main operation in this branch of operation. Where difficulty has been experienced earlier in the spring in obtaining efficient pulverisation of the soil, the opportunity should be taken when clods have been softened by rain. Every effort should be made to conserve the moisture in the soil by regular and intelligent working with the most suitable implement at the time, so that the top soil is friable, devoid of lumps, and has an even surface but without a crust, so that the smallest surface possible is exposed to drying winds, and yet leaving it in such a condition that the air can percolate through.

Such a condition of soil will materially assist the action of the bacteria in changing the unavailable plant food already in the soil, and that supplied by manures into a form in which the trees can absorb it, thus assisting growth, increasing the leaf-surface, and in consequence, improving the quality of the crop generally.

Grafts and Buds.

Trees that have been worked over either by budding last autumn or grafting this spring, must receive constant attention. Almost daily visits are necessary for a while to see that no openings have been caused by the growth of the scion. Many a graft has been saved from an early death by pushing over the cracks a little of the surplus wax which is almost always to be found around the working, thus excluding the air from the union. Where there have been misses, healthy shoots should be encouraged to grow from the stock by protecting them from overgrowth of the undesirable shoots: the former can then be budded in the autumn to fill up the gaps with very little loss of time. Remove as few as possible of the shoots coming from the stock, but control them by shortening back; they will assist very materially in keeping vigor in a tree that has already been so severely dealt with by heading back for reworking.

COLD STORAGE OF APPLES.

By W. J. Williams, F.C.S.(Lond), Superintendent of Markets, Sydney.

This is the first instalment of a lecture delivered by Mr. Williams in Sydney, on August 14, before members of the Institute of Refrigerating Engineers.

The subject was thoroughly discussed by members, and the lecturer was highly complimented on his paper.

THE CLIMATIC CONDITIONS throughout Australia and Tasmania, with the exception of Queensland, cover practically most varieties of Apples that may be grown in a successful manner, and no fruit industry in the Commonwealth has demanded so much attention as the Apple. There is greater demands for this type of fruit than for all other fruits put together.

There is a tremendous future for Apple growing throughout this country, especially as fresh districts are being opened up, from time to time, and there is a market ever expanding in England and the European countries for the best types.

Much experience has been gained by experiments that are conducted by the Apple grower and by those other associated industries which will enable this fruit to be placed on the consumer's table in a state of perfection.

Up to the present time Australia is a long way behind America in every branch of this industry, but the time is fast approaching when the Apple grown in Australia will be quite as good as any produced in any part of the world.

Apple Growing Districts.

Tasmania has been long renowned for the production of Apples, Victoria follows very closely, and New South Wales, South Australia and Western Australia are producing types of fruit that will be of such a standard as to give Australia quite a good name.

Apples grow very much better on the highlands and away from the coastal districts in all States, especially where the climate may be considered somewhat dry, but with a good rainfall. Apples grown in districts where there is not too much moisture will keep very much longer than those grown on the coastal areas. Then again. Apples grown in sandy loamy soil will be of a far better type than those grown in the hard heavy soils.

Varieties of Apples.

There are immense numbers of varieties of Apples grown throughout the Commonwealth, but the ones that most orchardists grow are those that will not only find a ready sale in Australia, but will keep sufficiently long and be quite attractive on the oversea market. Then again this means that those varieties of Apples that can be stored with success for any length of time will be those which will be most popular and profitable to the grower.

The different varieties, that are enumerated in this article, are those that have been tested and found useful from a keeping standpoint. Probably the most popular is the Granny Smith, which is extensively grown in most of the States, then follow Yates, Rome Beauty, Jonathan, Delicious, Stone Pippin, which are fruit of a universal type and have found favor in all quarters on account of their keeping qualities and splendid appearance, each having a usefulness because of its variety in flavor.

It is found, generally speaking, that the softer types of fruit which are the first to appear early in the year, are those which do not keep for any great length of time, and that Apples which are hard in texture take some time to develop and appear later in the season, are those that can be kept for several months. They have a great advantage over the softer types of Apples which so easily bruise.

Apples from the various States have been tested in many ways in cold storage, some wrapped, unwrapped, double wrapped, in boxes, and others with ventilation, while some have come from orchards that have been drained, some from young trees, and others picked from trees that had quite matured. Then again, fruit was gathered from what might be called wet districts, while other fruit came from the dry districts. Fruit has been stored over what might be considered a season with excessive rainfall and on the other hand seasons with very little rainfall.

Variety.	Description.	Appearance.
McIntosh	Dessert—very early variety	Green, ripening to yellow.
Dunn's Seedling	Dessert and cooking—early variety	Green, ripening to yellow.
Gravenstein	Dessert—very early variety	Yellow—red streak.
Cleopatra	Dessert and cooking—early variety	Green, ripening to yellow.
King David	Dessert—very early variety	Bright red.
Five Crown	Dessert and cooking—early variety	Green, ripening to yellow.
Jonathan	Dessert—mid season	Bright red.
Stone Pippin	Cooking—mid season	Green, ripening to yellow.
Delicious	Dessert—mid season	Red.
French Crab	Cooking—mid season	Green.
Scarlet Pearmain	Dessert—mid season	Red.
Granny Smith	Dessert and Cooking—late variety	Green, ripening to yellow.
Rome Beauty	Dessert—late variety	Bright red.
Yates	Dessert—late variety	Red.
Sturmer	Dessert—late variety	Yellow.
Democrat	Dessert—late variety	Bright red.
Crofton	Dessert—late variety	Red—yellow streak.
Rokewood	Dessert—late variety	Bright red.
Statesman	Dessert—late variety	Yellow—red streak.

Picking, Handling and Packing.

The state of maturity of the fruit is the most essential detail as will be seen as we proceed with the result of experiments with those Apples that have been kept in cold storage. If the fruit is picked too soon there will be a withering and wilting of the skin, and a loss of flavor, and this detracts from the appearance and selling qualities. If on the other hand overmature fruit is packed then its keeping quality has been largely diminished. Great care must be exercised in seeing that fruit is packed, especially for cold storage, and should be uniform as far as maturity is concerned.

Apples are packed in standard bushel cases, in paper, the type of which will be used according to the variety of the fruit, with air spaces in the boxes, so that there will be a free circulation of air. It is not possible to estimate the loss that has occurred on account of careless picking, bad packing, and undue handling of fruit before it has been placed in the cold storage works.

Apple picking starts in Australia in January and goes on until late May. By the use of cold storage Apples are obtained throughout the Commonwealth up to the month of November.

(To be Continued.)

NEW ZEALAND EMBARGO.

Caused by Australian "Fireblight" Embargo.

Speaking at the recent annual conference of the Fruitgrowers' Federation of New South Wales, the Minister for Commerce, Hon. F. H. Stewart, stated that the prohibition on Australian fruit entering New Zealand was on account of the Australian "fireblight" embargo on New Zealand Apples. If the Australian "fireblight" embargo were removed, he believed New Zealand would immediatel withdraw their prohibition. A resolution was carried urging the Federal Government to call a conference of biologists, State departmental experts, and fruitgrowers to consider this matter.

A campaign to popularise local Bananas has been decided upon by the Richmond District Council of N.S.W. This has been arranged to overcome the dominance of Queensland fruit on the North Coast.

PASSION FRUIT.

Export and Local Trade.

A report has been received by the Federal Minister for Commerce (Mr. Stewart) from the High Commissioner's Office, London, on two boxes of Passion Fruit shipped by Mr. A. W. Randall, of Warragul West, in May by the "Doric Star." The fruit was shipped as ordinary cargo, and it was reported as being in very good condition with no shrivelling. Officers at Australia House, London, said that there was a demand for Passion Fruit in London, but not on a large scale, and remunerative prices should be obtained if the fruit arrived without deterioration. Mr. Randell is continuing experiments with the object of further improvement before next export season.

The Executive of the United Berry Growers' Association considered the suggestion made at their recent conference that the sales of Peas, Plums and Passion Fruit should be included in the retail distribution scheme through the medium of the railways. It was contended that Peas could well be sold over the railways, especially in the North of Victoria, as residents in that part of the State seldom see that vegetable during the summer. The Department has rejected the proposal to sell Peas and Plums, also Apples, but has accepted Passion Fruit, and this fruit will be introduced in conjunction with berry fruits during the coming season.

AUSTRALIAN PRODUCE FOR GLASGOW.

Through the courtesy of Mr. Harold M. Ford, of the Clyde Navigation Co., Glasgow, we have received a report from the "Glasgow Herald" of July 13 on the expansion that has taken place in the past three years or so in the trade between Australia and New Zealand and the Clyde. With the sailings which have been arranged by the Blue Funnel and Clan Lines for the next few months, it is expected the total number of vessels from Australia and New Zealand will be 45 for the year, an increase of six over the shipping of 1932. Mr. Ford states that a large proportion of this increase in trade with Australia being opened up between the producing interests of that country and traders and merchants in Scotland. Last year 30 vessels were received into the Clyde from Australia, bringing 114,000 tons of all classes of produce.

FRUIT TREES

ONE GROWER SAYS—

"The trees (750) arrived in excellent order and are of exceptional quality. Our local inspector said they were the best trees he had seen. You will get my order, about same number, for next year."

QUALITY.
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CITRUS FRUIT INDUSTRY.

Increase of Duty Sought.

At the Tariff Board enquiry in Sydney recently, the Secretary of the N.S.W. Fruitgrowers' Federation (Mr. E. E. Herrod), asked that the present duty of 1d. per lb. general tariff on citrus fruits should be substantially increased. Mr. Herrod stated that the citrus industry of the Commonwealth was facing a very serious situation due to rapidly increasing production. By 1936 it was estimated there would be a surplus of 1,000,000 bushels. The embargo on fruit to New Zealand, the increased production in practically every country, the large areas under production in South Africa and South America, in addition, the U.S.A. and the Mediterranean, all helped to bring about over-production. Quantities of imported fruit coming on to the market were not large, but as they came at a very inopportune time, they had a depressing influence. The imported Oranges sold at about 6/- a case and they had a protection of about 4/-. Prices in Australia were so low that it was not necessary to look to other countries for supplies. From December to March cured Lemons sold at 7/-, and was high enough to attract foreign trade. It was stated that Italian Lemons could be landed in Australia at the cost of £1, and although at this price a loss had resulted, he anticipated that further supplies would be coming forward in Australia next year.

AUSTRALIAN ORANGES IN N.Z.

High Price Causes Disappointment.

Judging by the context of a letter written recently to a Wellington (N.Z.) paper, over the nom-de-plume of "Disgusted," a substantial reduction in the retail price of citrus fruits was anticipated when the Dominion Government partially removed the restrictions on imports from Australia.

The correspondent wrote:—"Thanks to the vagaries of our present Government we have been deprived for some considerable time of reasonably-priced fruit, especially Oranges. Island Oranges, at 2/6 or 3/- per dozen, are not within the reach of everyone, so it was with eager anticipation that I looked to the lifting of the fruit embargo and the advent of the Australian Oranges. But in asking the price of South Australian Oranges and Mandarins I found the Oranges were four for a shilling, the Mandarins eight for a shilling, and very small ones at that. (They were only worth sixpence a dozen.) Dearer than ever! Why? Who are keeping the prices up? We have a right to cheaper fruit landed on our wharves! If these Oranges are threepence each here, what will be the price of them by the time they reach Dunedin?"

RED SCALE ON CITRUS.

Mr. C. G. Savage, Director of Fruit Culture, Sydney, states that at the recent Conference of Agricultural Officers at Leeton, there was a full discussion on the subject of red scale. It was pointed out that, provided spraying was thoroughly done with miscible oils, that it was as effective as fumigation, but in many instances the spraying is not carried out efficiently. It is essential when applying sprays that the tree be thoroughly drenched and that every precaution must be taken to see that the spray reaches every portion of the tree, otherwise scale insects will be missed and reinfestation will soon take place.

"With reference to my remarks in relation to the winter spraying in America for resistant scale, continues Mr. Savage, "I have to state that the scale appears to be a little less resistant at that period of the year, consequently is more easily killed by winter treatment.

"From what I could gather, the bulk of the fumigation being carried out at Riverside was being done with liquid hydrocyanic acid gas.

"The reason for suggesting that fumigation should be carried out during the months of January to March is to ensure that the scale be killed and will thus be removed from the fruit before it reaches maturity. If no treatment is given until winter time the scales will increase and will be still alive when it is desired to market the fruit."

SOUTH AFRICAN CITRUS EXPORT.

2,000,000 Boxes for 1933.

South Africa's citrus fruit export for 1933 is estimated at 2,000,000 boxes, including nearly 200,000 boxes of Grapefruit. According to the Empire Marketing Board, during 1932, 1,952,000 boxes were exported from South Africa, comprising 1,757,000 boxes of Oranges, 19,000 boxes Tangerines, 157,000 boxes Grapefruit, and 19,000 Lemons.

"PLANT FOR THE PRESERVATION OF FRUIT, VEGETABLES AND THE LIKE."

NOTICE is hereby given that the owner of Australian Patent No. 21677/29, is desirous of disposing of his rights in this invention by way of license or otherwise. Further particulars on application to DAVIES & COLLISON, Patent Attorneys, 483 Collins Street, Melbourne, C.1.

Fruit Trees of Outstanding Quality

True to name, healthy and well-rooted. Citrus trees in large quantity—
Budding Wood supplied by the Bud Selection Society of N.S.W.—
Worked on Lemon, Sweet Orange, and Trifoliata Stock.

CATALOGUE FREE ON APPLICATION. ESTABLISHED 1901.

L. P. ROSEN & SON, Fernhill Nurseries

Pennant Hills Road, CARLINGFORD, New South Wales

SOUTH AUSTRALIAN ORANGES.

N.Z. Restriction Withdrawn.

It has been announced by the Minister for Commerce (Mr. Stewart) that a cable had been received by the Australian Government from the Prime Minister of New Zealand (Mr. Forbes) that the temporary embargo on South Australian Oranges had been withdrawn. The cable stated that any shipment following that by the "Kalinga" from Adelaide, September 16, may be made at shippers' discretion without quantity restrictions up to the end of December next. After December the position will be examined and arrangements made in due course for regulating shipments and quantities during 1934.

New South Wales.

Gosford.—At the recent Gosford show the principal awards included:—

Citrus.—District Orange Pyramid: Mangrove Mountain 1, Morriset 2. Isaac Chapman Cup (packing houses' competition): Gosford Packing House 1, Griffiths Co-operative Producers 2. Navel Oranges (12), 3 in. and under: A. Webster, J. F. Atkinson; under, W. Jupp & Sons. Late Valencias: 2½ in., R. Cowlishaw; Valencias, 2¾ in., J. Black; Joppas, 2¾in., L. Griffin; Joppas, over 3 in., A. S. Brown. Grapefruit (March, seedless): A. I. Chapman; do. (Weeney), A. W. Bullard. Lemons (fresh): R. J. Piner. Lemons (cured): A. P. Bailey. Lemon Peel: J. Dwyer. Mandarins: A. R. Stubbs. Any other variety: R. Cawlishaw. Cases.—Joppas, L. Griffin; Oranges (any other variety), W. Jupp & Sons; Lemons, R. J. Piper. Cured Lemons: A. J. Hitchcock. Mandarins: A. R. Stubbs.

EMPIRE MARKETING BOARD.

The Empire Marketing Board will go out of existence at the end of September, and towards a new scheme, the Federal Cabinet has decided to provide £3,360 a year, of which £2,828 will go to the Imperial Economic Committee, £280 to the Imperial Shipping Committee, and £252 to the Imperial Agricultural Bureaus. This decision follows the recommendations made by the Imperial Committee on economic consultation and co-operation which was set up at the Ottawa Conference. The Economic Committee will take over some of the work of the Marketing Board, such as the preparation of periodical market intelligence notes and the world surveys of production and trade, and the Agricultural Bureau will be entrusted with the administration and finance of the Imperial Institute of Entomology and the Imperial Mycological Institute.

The Prime Minister (Mr. Lyons), in paying a tribute to the work of the Empire Marketing Board, said the Board had performed valuable service to the Empire in trying to bring the Empire products more prominently before the people and had performed a useful work in linking and co-ordinating scientific research on many Empire problems.

Teacher (showing class a sprouting Potato while giving a lesson on roots): "Now who knows what this is?"

Small Boy: "Please, miss, a spud, teacher."

Teacher: "No, Potato."

Small Boy: "Well, it looks like a spud to me."

Fruit Canning.

CANNED AND DRIED FRUITS IN U.K.

Australia's Share in the Trade.

The Empire Marketing Board has issued an interesting report on canned and dried fruit supplies in 1932. Canned Apricots, Peaches and Pears were the most important products, and the total packs in 1932 were substantially larger than in the previous year, but well below the 1930 record. Imports of Raisins and Currants into U.K. showed an increase on those of the previous year, but Australia's share was considerably smaller. The bulk of the U.K. supplies consists of imported Apricots, Peaches, pears and Pineapples.

A number of new factories were erected in England and Wales and, at the close of the year 72 were canning fruit and vegetables.

The year 1932 established a record for imports of canned fruit preserved in syrup, which amounted to more than 3,200,000 with a declared value of over £6,000,000. Canned Pineapples formed more than a quarter of the total imports with 982,000 cwt., and were the largest individual item on the list. Apricots, Peaches, Pears and Prunes accounted for five-sixths of imported supplies, whilst Currants, berries and Plums, which compete directly with home supplies, came to very little more than 2 per cent. of the whole.

The increase in Empire supplies rose from 920,000 in 1931 to 1,250,000 cwt. in 1932. Overseas Empire countries supplied nearly 40 per cent. of the total available, as against 30 per cent. in 1931, the principal being Malaya with a record of 911,000 cwt. of Pineapples. There were also substantial increases in imports from Canada, Australia, and South Africa, mainly of Pears, Apricots and Peaches, but the bulk of imported canned fruit came, as usual, from the United States.

Empire countries played a smaller role than usual in supplies of Raisins and Currants, and other dried fruits of which the imports were nearly 20 per cent. greater than the large total imported in 1929. More Raisins and Sultanas came into the country than in 1931, mainly from Turkey, Greece and Crete, only one-fifth of the total coming from the Empire, chiefly from Australia, where the crop was small. Of dried fruits such as Figs, Dates, Prunes, Peaches and Pears, our imports totalled 1,211,901 cwt., nearly half of which was made up of Dates.

FRUIT CANNING.

Wages Adjustments.

On a reserved judgment by Chief Judge Dethridge wages for juniors in the fruit canning industry were reduced.

His Honor said the fall in the cost of living had so affected the adjusted rates for adults that juniors of 20 or 21 years of age, whose wages were not adjusted, were receiving a higher rate than that prescribed for adults. The award rates for female juniors under 18 had been made higher than those for male juniors of a corresponding age, because the females suffered greater disadvantages than boys, but the benefit of the higher rates seemed to have been counteracted in practice by males being given preference in employment. He thought that rates for juniors

should be in precentage proportion to the rates for male adults scaled according to age. The alterations would take effect as from September 23.

S. AFRICA'S CANNED FRUIT EXPORT.

Particulars regarding export of canned fruit, jam and pulp are to hand from the South African Food Canners' Council, Cape Town. The membership of the Council comprises deciduous and citrus fruitgrowing organisations, Sugar Association of South Africa, dried fruit interests, all firms or persons engaged in jam manufacture or canning operations, and canister manufacturers, and it is anticipated that an early date the packers of canned fish will be associated with its activities.

The exports of canned fruit from December 1, 1932, to July 31, 1933, totalled 70,578 cases, jam 1,145 cases, and 3,690 cases of fruit pulp. Of the total canned fruit the following were the quantities of the different varieties:—Apricots 23,835 cases, Peaches 225, Pears 31,825, Pineapples 12,046, fruit salad 1,038, Guavas 35, Figs in Syrup 150, Cape Gooseberries 951 cases, Grapefruit 433 cases. Quinces 25, Granadillas 15. The above quantities were shipped from three ports, namely, Durban, Port Elizabeth and Table Bay. Of the total quantity, 67,250 cases went to British ports, 2,308 to Canada, while small quantities were shipped to Holland, Belgium, U.S.A., and India.

AUSTRALIAN CANNED FRUIT EXPORT.

The export of Australian canned fruits from January 1 to August 31, 1933, totalled 1,029,822 dozen 30 oz. tins and 424,563 dozen 16 oz. tins. Individual quantities were as follows:—Apricots, 200,599 dozen 30 oz. tins; 34,023 dozen 16 oz. tins. Peaches, 462,714 dozen 30 oz. tins; 241,714 dozen 16 oz. tins. Pears, 366,509 dozen 30 oz. tins; 148,826 dozen 16 oz. tins. Quantities to various destinations were as follows:—

	Dozen 30 oz.	Dozen 16 oz.
United Kingdom	966,863	414,118
New Zealand	18,489	220
The East	27,410	5,079
Canada	13,500	4,000
Miscellaneous	3,560	1,146

In addition to the above, 533 dozen Apricots and 1,567 dozen Peaches of No. 10 size were exported to Canada and 14 dozen Apricots and 19 dozen Peaches of No. 10 size were exported to the East. Total sales in U.K. to September 9, 1933, were 412,617 cases.

It is understood that the Agent-General for Victoria and Mr. S. M. Bruce, Resident Minister in London, will make individual reports on the failure of the end of the 1933 Apple season. Their joint opinions will form a report to their Governments.

"ALL-WEATHER" Patent Evaporator

For drying Currants, Sultanas, Lexias, Vegetables, Fruits, etc.

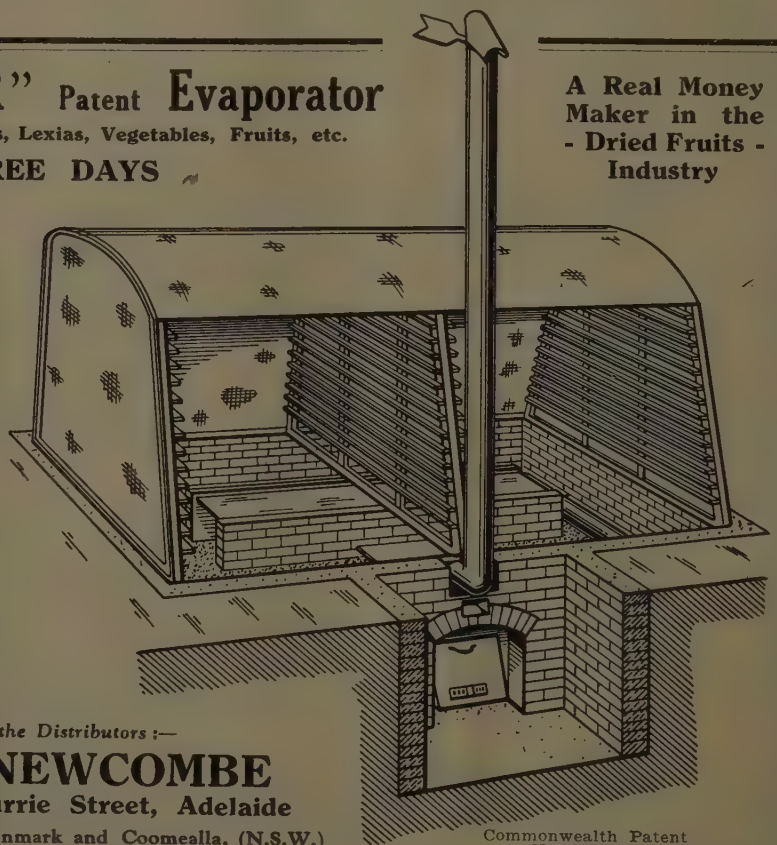
IN THREE DAYS

A Real Money Maker in the - Dried Fruits - Industry

SIMPLE
EFFICIENT
ECONOMIC

"All-Weather" Evaporators can be built by the makers in various sizes. They are sufficiently simple for any grower to instal himself, or the manufacturers will erect them. Plans and complete directions supplied.

This great invention completely eliminating weather risk, is within the means of practically every grower. It can be installed in two or three days.
About 1,000 bricks are required.



New trays are not required. The manufacturers will design an "ALL-WEATHER" Evaporator to suit the trays you are now using. Instal one now in readiness for the next drying season.

For Particulars and Prices apply to the Distributors:—

CROWE & NEWCOMBE

Richards Buildings, Currie Street, Adelaide

Branches at Anguston, Barmera, Renmark and Coomealla, (N.S.W.)

Commonwealth Patent No. 7572/32.

Australian Dried Fruits.

The Commonwealth Dried Fruits Export Control Board in their thirteenth bulletin relative to the disposal of the 1933 harvest, advise that during the week ended September 14, 996 tons of Australian dried fruits were placed in the British market.

The sales as registered with the London Agency of the Board included 619 tons Sultanas at an average price of £38/8/4; 73 tons Currants at an average of £36/5/-, and 301 tons Lexias at £38/5/- per ton.

The total shipments of Australian dried fruit to Great Britain to date amount to 34,076 tons Sultanas, 10,128 tons Currants and 3,974 tons Lexias, or a total of 48,178 tons.

Of this quantity it is estimated that approximately 10,374 tons are afloat.

The sales in Great Britain to date of the 1933 harvest cover 16,088 tons Sultanas, 8,681 tons Currants and 2,340 tons Lexias. Approximately the whole of the Currants and Lexias which have arrived in Great Britain have been sold, and it is understood that shipping organisations are pushing forward the despatch of the remaining supplies of Currants and Lexias available for the British market.

As the demand for Currants and Lexias continues strong, satisfactory progress is being made in the realisation of the Sultana harvest. The demand in Great Britain is somewhat quieter at the moment prior to the development of the seasonal displacement during October and November.

It is anticipated that 53,000 tons of Australian dried fruit will be shipped to Great Britain, which will constitute a record for that market.

Shipments to other markets amount to 6,763 tons, and it is probable that, before the close of the season, shipments to other destinations may reach 12,000 tons, leaving the customary provision for the Australian market from the record crop harvested of some 77,500 tons.

Dried Fruits Film.—An official talkie film of the dried fruits industry, entitled "Concentrated Sunshine," has been screened at Melbourne and Sydney theatres recently. The film was taken in the Renmark, Berri and Mildura districts, and has been shown in England under the direction of Mr. A. E. Hyland. It was also shown in Canada.

S. AUST. DRIED FRUITS BOARD.

The annual report and balance-sheet of the South Australian Dried Fruits Board for the year ended February 28, 1933, states that the final figures for the 1932 pack for dried fruits were:—

Currants, 8,056 tons; Sultanas, 8,537 tons, and Lexias 1,216 tons.

Favorable reference is made to improved shed packs and to the services of Messrs. A. V. Lyon, M.Sc., G. Quinn, and Professor Perkins for assistance in cultural directions.

Regarding the litigation in the "James" case, the costs were £12,145 damages to plaintiff; £4,912 costs and £207 interest and exchange. Total, £17,264. The Board has been relieved of contributing to the funds of the Joint Publicity Committee, and there will be no levy on the growers.

DRIED FRUITS ACTS.

Successful Prosecution in N.S.W.

At the Griffith Police Court on September 5, 1933, William James Carney and Harold T. Jacob, grocers, of Griffith, were each fined £6 with 8/- costs, 35/- witnesses' expenses and £2/2/- professional costs, for having purchased dried vine fruits which had not been properly packed, graded and branded in accordance with the regulations under the Dried Fruits Act, 1927-1929.

At the same Court, Massimiliarno Bisa, orchardist, of Hanwood, and William Hiscoke, orchardist, of Griffith, were each fined £6 with 8/- costs, 35/- witnesses' expenses and £2/2/- professional costs, for having sold the fruit.

The cases had rather a chequered career. The informations were laid as a result of an inspection made in April last. They were first called at the Griffith Police Court on June 20 last, and the police applied for an adjournment, which was refused, and the cases were dismissed. Fresh informations were laid.

The defendants appeared before Mr. Harris, P.M., on August 24, 1933. Considerable argument ensued regarding the validity of the Dried Fruits Acts and regulations. The magistrate on a reserved decision found for the prosecution and that the Acts and regulations were valid.

AUSTRALIAN DRIED FRUITS ASSOCIATION.

Meeting of Victorian Branch at Mildura.

The Victorian Branch of the Australian Dried Fruits Association held a State Conference at Mildura on September 19. Delegates were present from Mildura, Merbein, Curlwaa, Red Cliffs, Nyah, Coomealla, Woorinen, Bungunyah. Delegates were appointed to the Federal Council conference on October 17. On a motion of the Red Cliffs branch a reduction of merchants' commission from 10 to 7½ per cent. was agreed to for remission to the Federal Council. A motion for the lodging of a fidelity bond by packers was agreed to.

An address was given by Mr. A. V. Lyon, scientist in charge of the Commonwealth Research Station at Merbein, on color change in fruit after shipment. Mr. Lyon gave instances of the results of comparisons made between top grade fruit sent to England for return and samples of the same fruit retained for observation in Melbourne. Mr. Lyon stressed the fact that fruit with a green tinge and lacking in sugar content deteriorated under transport conditions and in the English climate.

Mr. Russell, general manager of Crowe & Newcombe, Australasian distributing agents for the All Weather Evaporator, reports that at the Adelaide Royal Show this firm had many inquiries, especially from smaller growers, who realised the value of this new machine, which dries fruit within three days. The cost of this outfit is less than one-third of some of the systems now operating. The outlay represents the cost of a rack. This firm is ready to appoint agents in other States and enquiries in this respect would be promptly dealt with.

GRAPE CULTURE RESEARCH.

Improved Black Grapes Sought, also Seedless Raisins.

INFLUENCED BY THE PUBLIC TASTE for fresh black Grapes in preference to green and white varieties of table Grapes, the Department of Agriculture, New South Wales, is endeavoring to breed a well-flavored black Grape. The Grape must possess good handling, keeping qualities, and suitable for growing in the irrigation areas and for export. Experiments are being made at Yanco by the Assistant Plant Breeder (Mr. Poggendorf). Ohanez has been crossed with Brown Muscat, Black Malaga, Menavacca and Pizzutello Nero. Seedlings are now three to four years old, but have not borne fruit nor shown much vigor. Mr. Manual, Department Viticultural Expert, said that Gianetti and Ribier, two black varieties, developed undesirable qualities in storage, but were to be crossed with Ohanez in further experiments. An attempt is being made to improve the resistance of wine and table Grapes to disease, particularly downy mildew.

Any project is the production of a commercial seedless or near-seedless Raisin. A Raisin Grape of this type has been produced at the Geneva Experiment Station at New York (U.S.A.), and Davis Experiment Station, in California, is experimenting to that end by crossing the Muscat of Alexandria and other Muscats with seedless Grapes.

MARKET FOR FRESH SULTANAS.

SULTANA GROWERS will find a good market for their fruit at City Fruit Markets, Sydney, if they are prepared to do a little advertising in the press, and provide the fruit merchants with attractive posters. Very few of the growers market their fruit fresh. The big majority cater only for the dried fruit market and leave the marketing of fresh fruit to the growers of large varieties. The Sultana eaten fresh is delicious, having a larger sugar content than most Grapes, and has only to be pushed by a little advertising to bring it into favor with the general public. Packed in cartons, the fresh Sultana should sell well in Sydney, and any grower in the Northern Victoria area who wishes to exploit this market in the coming season, should get in touch with the "Fruit World" representative at 439 Kent-street, Sydney.

Reduction in Tree Fruit Prices.—The A.D.F.A. Secretary, Mr. W. N. Sumner, advises that the following reductions in tree fruit prices have been decided on:—Apricots, 4-crown, 2-crown, 1-crown and slabs reduced 1½d. per lb.; 3-crown and ungraded reduced 1½d.; plain reduced 1d. Nectarines, all grades reduced 1½d. per lb. Peaches and Pears, all grades reduced 1d. per lb.

N.S.W. Dried Fruits.—Regulations were recently gazetted under the N.S.W. Dried Fruits Act, 1927-1929. to cover transactions in dried tree fruits. The previous regulations dealt only with dried vine fruits.

Novel Spraying Method.—An illustration is to hand from a reader in New South Wales showing a new style of spraying fruit trees. The illustration shows a caterpillar truck with tanks and mast being towed by a tractor. The men in the crow's nest spray the top branches, while the men on foot follow and spray the lower branches of the trees. The mast appears to be about 18 feet from the floor of the truck, it being of stout timber, the crow's nest being an enclosure capable of holding three men. The envelope showed the postmark, "Mosman, N.S.W."

CONCENTRATED APPLE JUICE.

A report on concentrated Apple juice is to hand from the Australian Trade Commissioner in Canada, Mr. L. R. Macgregor, by courtesy of the Commonwealth Department of Commerce. The report states that concentrated Apple juice is a basis for making cider. The Chief Assistant Horticulturist at the Central Experimental Farm, Ottawa (Mr. M. B. Davis) estimated the total production last season to be 140,000 gallons. There are two methods of production, namely, the vacuum pan and the open pan system. It is understood during the past season about 115,000 gallons, 32 deg. baume, were shipped from Nova Scotia to the U.K. market. There has been a great increase in the consumption of Apple cider and Canadian firms have enjoyed a considerable increase in their trade, and sales are now at approximately 3/- per gallon. Canadian Apple juice is concentrated to 1.3—1.35. The containers used for export are 40-gallon casks or barrels. Old molasses casks are frequently used to cut down operating costs.

BY-PRODUCTS FROM FRUIT.

A proposal is under consideration in Sydney for establishing plants in fruit districts for manufacturing fruit powders.

It is claimed that by treatment of whole fruit or fruit juice by a process which has been developed in the United States, a powder may be produced which has the color, flavor and aroma of the original fruit and which is soluble in cold water. The fruit is made into a pulp and sprayed with a current of heated air. The particles of spray give up their moisture to the heated air and lose heat by the evaporation. The dried product formed may be globular, irregular in shape, or it may be in the form of threads. According to the substance being dried, the particles may be solid or porous. The dried product falls to the floor of the drying chamber, where it comes in contact with cold air introduced by an air sweeper rotating above the floor, which is kept cool. Vegetable products can also be reduced to a powder. This should give a method for utilising cull and glut fruit. It is proposed to use the product for flavoring purposes for confectionery, food products, ice-cream and other culinary purposes.

GERRARD
ADECO
FRUIT CASE
LID PRESS
costs so little but saves time and prevents damage.
For Standard and Dump Cases, 77/6
For Banana Cases - - - - 90/-
(F.O.B. Melbourne)
Gerrard Wire Tying Machines Co.
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119-125 Hawke St., West Melb., C.3.
SYDNEY. BRISBANE. ADELAIDE. PERTH. HOBART.
DETAILED PACKING CHARTS AND GENERAL FRUIT PACKING INFORMATION ARE SUPPLIED FREE ON APPLICATION. "GERRARD SERVICE."

NEW SOUTH WALES.

A recent report from the Department of Agriculture states that in most citrus growing centres there is very satisfactory budding and development of new growths on practically all classes of trees.

Bananas.—Although additional acreage is under crop in Coffs Harbor district, the August shipment by steamer showed a falling off of 3,400 cases, as compared with the previous year. This is largely attributed to the severe winter of 1932, and the generally unfavorable conditions that have prevailed since.

Pineapples.—There were fairly heavy marketings during September.

Passionfruit.—On the North Coast there were only light yields for the winter crop. In the Brunswick district a good summer crop is expected. Some fine quality fruit was marketed during September from Coorabell, in the Lismore centre.

THE FRUIT FLY.

During the past season, growers in N.S.W. particularly have suffered enormous losses through the fruit fly menace, but the entomological branch of the N.S.W. Department of Agriculture state that this can be controlled by poison spray consisting of fruit juice, molasses, arsenate of lead and water applied once a week to patches of the foliage for a period of five to six weeks before the harvesting of the crop, also the efficacy of the glass traps baited with fruit juice or a mixture of ammonia and essence of vanilla in water had been demonstrated. These processes must be carried out every two or three days or less with the persistent use of foliage poison or trapping for five weeks before the ripening of each individual crop.

OVERDUE ORCHARD REGISTRATIONS IN N.S.W.

It has come to the notice of the Department of Agriculture that a number of orchardists failed to register their orchards for the years 1932 and 1933. As these payments are considerably overdue it has been decided to institute legal proceedings throughout the State with a view of securing payment of the arrears. It is therefore advisable that orchardists who are desirous of avoiding court proceedings and the additional expense should remit the outstanding amounts immediately, either direct to the Under Secretary, Department of Agriculture, Box 36a. G.P.O., Sydney, or to the nearest Clerk of Petty Sessions.

NEW SOUTH WALES.

Orange.—The Orange Producers' Rural Co-operative Society has decided to establish a packing house in conjunction with local cool stores. It is their intention to supply 250 tons of Cherries for crystallisation purposes to city firms. In co-operation with Young orchardists, they have appointed 25 agents in Sydney to handle the entire Cherry crop of the Orange and Young districts.

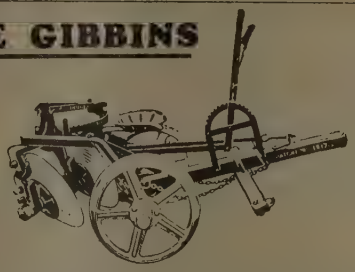
At the recent show of the Galston Fruitgrowers' Association, the chairman, Mr. A. C. Hunt, stated that the Association had organised fruit trains to assist in selling the surplus.

The disposal of fruit to schools had been arranged.

* * * * *

There has been a big increase in roadside stands in N.S.W. Much fruit is thus being profitably disposed of.

THE GIBBINS



The patent Gibbins' Reversible Disc Plough now embodies special features which enables this plough to be worked right up to the butts of the trees. With the Gibbins, you can throw ON TO THE TREES OR AWAY FROM THE TREES.

The Gibbins is also fitted with ADJUSTABLE UNDERCUT and PATENT REAR-FLOATING DISC, together with PATENT AUTOMATIC ANTI-SIDE DRAUGHT CONTROL. These special features place the Gibbins' Reversible Disc Plough in a position to meet the many requirements on the orchard. You can also convert your Gibbins' Plough into a Spring Tyne Cultivator or Disc Cultivator.

WRITE TO DEPARTMENT "B" FOR FREE ILLUSTRATED CATALOGUE.

Do not Fail to See the Gibbins' Exhibit at the Melbourne Show. — Stand No. 66

GIBBINS FARM IMPLEMENT Co. Ltd.
Footscray, W.11

BATLOW DISTRICT COMPETITION.

Mr. Vines won the Batlow district's ninth pruning competition by securing 705½ points and holds the challenge cup for a year. Mr. C. Barberie with 680 points got second place, and Mr. W. Bartell was third with 674½ points. Messrs. W. W. Cooke, fruit inspector, southern district, E. C. Whittaker, local instructor, and E. M. Herring, of the local branch of the Agricultural Bureau, acted as judges, and stated that some weakness was still shown in the handling of immature trees. Williams Pears were not so well handled as other varieties. The pruning of bearing trees was sound and showed a fairly uniform standard.

CARE OF THE SPRAY PUMP.

To lengthen the life of the engine of a power spray plant, after use, all working parts should be wiped over and well swabbed with oil, and the outfit should be kept under cover. If oil sprays are not used the pump should be rinsed every night after spraying, as the valves get caked and the metal corrodes. Care should be taken in doing this. First rinse the tank out and then pump through clean water with the hoses off to give a clear outlet. The hose should also be rinsed every night by pumping clean water through it; if oil has been used soda should be dissolved in the water used for rinsing, a cask of prepared soda solution for this purpose being kept on hand during spraying operations. The operation should be carried out either after the pump has been first thoroughly rinsed, or with a separate small pump. The thorough drying of the hose when put away has not been found necessary; in fact, provided it is clean water, moisture in the hose is possibly beneficial. Avoid hanging the hose close up to an iron roof or in any hot place. Keep it covered with bagging or similar material.

Our Correspondence Column.

Olives:—"S.A.W.", Yenda, N.S.W., writes: "Could you tell me the best variety of Olives to plant suitable to climatic conditions prevailing on the Murrumbidgee Irrigation Area?"

Answer (by C. G. Savage, N.S.W. Dept. of Agriculture).—The following Olives will be found suitable for the Murrumbidgee Irrigation Area:—Manzanillo, Macrocarpa, Gros Redonau, Hardy, Sevillano, Verdale, Lucca; of these, the following varieties will be found suitable for pickling purposes:—Sevillano, Macrocarpa, Verdale and Hardy. All of the varieties can be used for oil purposes, but some will be found to yield a greater quantity per ton than others.

Importation of Apples.—"Blackburn" writes: What were the average importations of Apples in U.S.A. and Canada prior to the fireblight embargo, and when did the fruit arrive?

Answer.—The average importation of Apples from 1913-1921 were approximately 60,000 each season, fruit being landed in Sydney during late September, October, November and December, with an average value of approximately 12/6 landed costs duty paid. Fully 2/3rds of these importations came from U.S.A.

ROOT BORER CONTROL.

Blasting Powder and Carbon Bisulphide.

The Editor, "Fruit World."

Sir,—In your July issue was stated that the citrus trees in the Castle Hills districts were being infested by the root borer. Some years ago the writer was living in the adjoining district, and had the same trouble, which was overcome by the following treatment:—When the disease was first noticed I had an iron bar 3 ft. 6 in. long, tapered at one end, and an inch eyelet at the other end, and the top was rounded so that a maul could be used for driving the bar into the ground, which was done diagonally, starting about 2 ft. from the butt of the tree and driving the bar as far down as possible; the bar is then withdrawn, and a charge of blasting powder, usually about half a small teacupful, is put in the hole and the fuse next; then the ground is tamped and the fuse lighted; this gives sufficient explosion to cause a cavity, well beneath the roots, that fills with poisonous fumes, which kills any borers that have not been destroyed by the shock of the explosion.

The amount of powder necessary for the various kinds of soil can be easily tested by measuring the amount of the charge and noting the results, but as most of the country there has the clay subsoil, the above amount will be satisfactory. It is not necessary to blow the soil out of the way, only merely to fill the soil with the fumes.

Three weeks to one month later, use the bar again, driving it into the ground about 12 to 18 inches, withdraw it, and into the hole pour half an ounce of carbon bisulphide; this is a highly inflammable mixture, so the user must not smoke during its use; next, cover the hole with the soil, and you will find that the borer will be cleaned up, and, at intervals of, say, three months, the use of carbon bisulphide will protect the tree from further invasion and, after the use of it about three times, the ground should be free from the larvae, and later the use now and again of the carbon will protect the tree from further invasion.—"Pomona."

Gympie, Q., 16/8/33.

The BAVE-U POWER SPRAYER

SINGLE ACTING MODEL

This machine is thoroughly reliable and sturdy, and will supply two hoses at any desired pressure. It is moderately priced and represents the best value on the market to-day.

Write for full particulars
:: to the manufacturers ::

RUSSELL & CO.

ENGINEERS - Box Hill, E.11, VICTORIA

AUSTRALIAN PRODUCE FOR U.K.

Gift Schemes Are Popular.

The Department of Agriculture, Victoria, is offering an opportunity to those who desire to forward presents to friends abroad, the opportunity of sending without trouble and with a minimum of expense, choice quality Victorian produce. The gifts available and the prices charged are as follows:—

10 lb. of choice butter (in 1 lb. cartons), 17/6; 24 lb. of assorted dried vine fruits (in 1 lb. cartons), 20/-; 24 tins of assorted canned fruit, 25/-; 1 carcase of prime lamb, 25/-; 24 tins of assorted jam, 25/-; 24 pint bottles of assorted wine, 45/-; a small mixed parcel for 12/6; a mixed parcel, including wine, for 18/6. The 12/6 parcel will include a 1 lb. carton of butter, 1 lb. carton each of Sultanas, Currants and Raisins, 1 tin each of Apricots, Peaches and Pears, and 3 tins of jam. For 18/6 the above assortment with the addition of 3 pint bottles of wine, may be forwarded.

Orders for delivery of any of these gifts to any address in Great Britain this coming Christmas should reach the Director of Agriculture, Treasury Gardens, Melbourne, C.2, not later than October 28, and should be accompanied by remittances. All particulars can be obtained on application.

PERSONAL.

Mr. S. M. Bruce, Resident Minister in London, has been appointed High Commissioner for Australia by the Lyons Government.

In the annual report of the Tasmanian State Fruit Advisory Board, appreciation is expressed for the capable services of the secretary, Mr. A. J. Honey.

Australian Fruit in U.K.—When interviewed recently in London, Mr. C. J. Parnham, fruit exporter, of Melbourne, said that shipping companies welcomed the suggestion to form an Interstate Freight Committee of the Australian Apple and Pear Export Council. Early ripening English and Continental fruits had disastrously affected late shipments from Australia. The quantity of Apples shipped in 1933 was too great. He thought that the total Australian and New Zealand shipments should not exceed 4,000,000 or 4,500,000 a year.

In emergencies, men frequently do what at other times would seem impossible. Let us make each moment an emergency.

VICTORIAN FRUIT CROPS.

In the last seasonal report issued by the Department of Agriculture, Victoria, it is stated:—

Deciduous Fruit.—There is a general opinion that the fruit crop of 1933-34 will again be a good one. Considerable planting has taken place. Early Apricots and Peaches are being planted at Tresco. In the central districts, the crop promises to be good in both Apples and Pears. Loquats will be light. Everything points to a good crop in the Goulburn Valley. In the Mornington Peninsula Jonathan promises to give an excellent crop, while with other Apples and Pears, fruit buds are showing well.

Excellent results against San Jose scale have been obtained by an extensive winter spraying campaign.

Viticulture.—The winter has been dry. Green manure is being ploughed in. An early bud burst does not seem imminent, nor is it desirable in view of the risk of spring frosts. Swabbing against black spot is being attended to in the Swan Hill areas. Mildura growers are trusting to spraying alone.

Citrus.—The main crop is being marketed steadily. Washington Navels have passed their peak. The quality of the citrus crop has been good and the fruit of fine appearance, except for rind blemishes due to wind injury and hail marks.

Anthracnose spotting has appeared on several groves and growers who have experienced this fungus disease should endeavor to harvest their fruit before the danger spreads.

SELLING FRUIT BY NUMBER.

Large quantities of Apples and Pears are now being sold in Victoria by number instead of by weight.

The Melbourne and Metropolitan Retail Fruiterers' Association has adopted this reform, and is actively seeking its extension among all fruit retailers.

Enquiries made by a "Fruit World" representative elicited the fact that those retailers who still continue to sell by the pound instead of by number justify themselves by saying that fruitgrowers do not grade and pack evenly.

These retailers expressed the wish to adopt the reform but said they were unable to do so until the growers improved their packing methods.

* * * * *

It is hoped that the campaign for having large fruits by number will be persisted with until it is completely adopted.

The new system will be of special value to Peach growers and do away with much bruising otherwise caused in weighing.

ARSENIC ON FRUIT.

Warning from New South Wales.

Growers shipping Apples and Pears to Sydney from the other States are advised to forward fruit free from arsenical spray, otherwise there is a likelihood of affected fruit being rejected. Several cases of Apples and Pears had been found to contain arsenic in excess of the tolerance, namely, one-hundredth part of a grain per lb. This information has been communicated by the Department of Agriculture, N.S.W., to the Victorian Minister of Agriculture (Mr. Allan).

Trade With Manchester.—Capt. W. J. Wade, Sydney, notifies that produce for Manchester is being conveyed by the "City of Winchester," leaving Sydney on October 10, and the "Middlesex," leaving Brisbane on October 30. Both ships pick up cargoes at other Australian ports.

SPRAY RESIDUE ON FRUIT.

Mr. J. M. Ward, Superintendent of Horticulture, Victoria, who recently visited Queensland, has issued the following:—

Recently I visited Queensland in connection with the above subject; and inspected a sample of Apples, taken from Victorian consignments which were greatly affected with lead-arsenate spray residue. They were literally covered with white blotches and looked anything but creditable to Victoria.

Upon analyses of samples taken from the two rejected consignments returned to Victoria, it was found that the Apples from one grower contained nine times more arsenic than is allowed by the British and Australian regulations; and the fruit from the other grower was eight times in excess of that allowed.

Analyses of samples from other consignments of fruit examined by me in company with the Queensland Health Officers, showed that the fruit contained arsenic far in excess of the amount allowed (1/100th part of a grain per lb. of fruit).

The position in Queensland is this: the regulations so far as fruit is concerned reads as follows:—

> "No person shall sell or attempt to sell, or receive for sale, or have in possession for sale, expose, send, forward, or deliver for sale any fruit of any kind whatsoever which has adhering to it or upon it any arsenic or lead."

Although this regulation states that no arsenic or lead is allowed on fruit, yet in actual practice the Queensland Health authorities are allowing a tolerance of 1/100th part of a grain per lb. of fruit.

The reason for Queensland enforcing this regulation in question is because of the fact that medical men have recently been able to diagnose certain illnesses as due to lead poisoning—not necessarily due to lead-arsenate—therefore the Health Department determined to take every possible precaution to prevent as far as possible lead and arsenical poisoning. Drastic steps had been taken against various Queensland growers—chiefly vegetable growers who submitted for sale cabbages, tomatoes, etc. almost white with lead arsenate. Several Queensland growers were fined £10 each for not complying with the regulation in question.

I was informed that numerous deputations of Queensland growers had waited upon the Minister for Health relative to this subject; and that much publicity had been given to the matter in the Brisbane press during the past 12 to 18 months.

The Health authorities in Brisbane met me in a good spirit and extended every courtesy to me, and were quite sympathetic in regard to our problem, and granted certain concessions; but in view of their action towards their own growers, they could not pass fruit from another State that clearly showed excessive arsenical spray markings.

The Apples from Tasmania and New South Wales examined by me in Brisbane were very clean and free from spray residue when compared with some of the Apples from Victoria.

Some Victorian Apples in the Sydney market during the period of my visit showed up even worse than those in Queensland. Several fruit agents in Sydney informed me that Apples showing excessive spray markings were bringing a shilling per case less than those cases containing Apples free from spray residue.

The position is that any Apples and Pears forwarded to Queensland, also to Sydney, must not contain visible arsenical spray markings.

It is not yet too late to apply

Sulphate of Ammonia

The Cheapest
. . and . .
Most Effective

Dressing for Citrus Trees

. . also for all . .

Fruit Trees Lacking in Growth

APPLY THIS MONTH

Full Particulars from

Nitrogen Fertilisers
Proprietary Limited
360 COLLINS STREET, MELBOURNE, C.1.

SOUTH AUSTRALIAN NOTES.

Tomatoes.—Supplies of glasshouse Tomatoes are normal, and heavier consignments were marketed during September than in the corresponding month of last year.

The market representative in Melbourne (Mr. C. W. McRostie), reports that several complaints have been made regarding same, some retailers have resorted to the practice of selling inferior Tomatoes from other sources under the South Australian brand. Efforts will be made to trace the offenders and bring them to book. The South Australian product is well known for its high quality, and the Growers' Association will do all in its power to protect the buying public.

In previous years some very attractive prices were received by the growers for early Tomatoes, but in recent seasons competition from W.A. has meant much lower returns for growers specialising in producing early Tomatoes.

Prices during September were fairly satisfactory owing largely to the very splendid weather experienced.

It is noted that the S.A. Tomatoes this year are of splendid quality. The S.A. growers have always had a reputation for putting up their fruit in an attractive manner, and the buyers have very little to complain about.

One selling agent remarked that it is a pity that other fruitgrowers do not attempt to emulate the Adelaide Tomato growers, who were possibly the best organised section of growers in the Commonwealth, and who had always paid special attention to improving the quality and packing of their product.

Celery.—The present season will conclude shortly. Consignment totals to the Melbourne and Sydney market are believed to have constituted a record. This section of the S.A. Fruitgrowers' Association is also very well organised, and has done a tremendous lot to open up new markets, and also assist the distribution of celery, by undertaking advertising campaigns in all States.

Citrus.—The citrus section, under the chairmanship of Mr. N. T. Hobbs, co-operated with the Murray Citrus Growers' Association in attempting to have the N.Z. Citrus Embargo modified, with the result that now South Australian citrus is permitted to enter New Zealand.

The Torrens Valley growers have established a co-operative packing

house at Payneham, and the Salisbury growers are also doing their export packing co-operatively at Salisbury. This is a very big step forward. In addition, the packing sheds close to Adelaide are co-operating with the Murray Valley growers as far as export is concerned. This is very pleasing, because such co-operation has been neglected in the past, and it is felt that the bringing of these two big growers' organisations together will also be an advantage from a local marketing point of view.

Recently Mr. Underwood (Sec. Murray Valley Citrus Association), and Mr. L. J. Wicks (representing Torrens Valley and Salisbury) visited Melbourne on citrus business.

It is very pleasing to note that the S.A. Fruitgrowers' Association has now added another live wire section to its already flourishing Tomato, celery and Cherry export sections.

S.A. FRUITGROWERS' AND MARKET GARDENERS' ASSOCIATION.

THE annual conference of the S. Aust. Fruitgrowers' and Market Gardeners' Association was held at Adelaide on September 29, being officially opened by Hon. A. P. Blesing, Minister for Agriculture.

It was decided to make every effort to have improvements made in the manufacture and distribution of citrus drinks.

Mr. Geo. Quinn, Chief Horticultural Instructor, delivered an appreciated address regarding the fumigation of fruit trees exported from and imported into S. Australia.

The subject of research work in progress at the State Experimental Orchards at Blackwood and Fullarton, was ably dealt with by Mr. Rodney Fowler, manager of the Blackwood Orchard.

. . . .

At the Executive meeting at the end of August, a resolution of protest was carried against the possibility of the closing of the Government Produce Export Department. Messrs. Randell, Pritchard and Brearley were appointed a committee to watch the interests of fruit exporters.

. . . .

The monthly meeting of the Marion Branch will be held on October 3.

The Campbelltown Branch holds its annual meeting on October 9, when an address will be delivered by Mr. F. C. Staniford.

OBITUARY.

We regret to announce the death of Mr. James Donaldson, of Paradise, S. Aust. The deceased was an appreciated grower and always a ready helper for improvements in the fruit industry. At one time he was president of the Australian Conference of Fruitgrowers—the body which became the forerunner of the present Australian Apple and Pear Export Council.

N.Z. FRUITGROWERS' FEDERATION.

THE annual meeting of the N.Z. Fruitgrowers' Federation was held at Wellington on September 6, 7 and 8, 1933. Mr. T. C. Brash (President) occupied the chair.

Effects of Ottawa Agreements.

The annual report stated that the full effect of the Ottawa agreements had not yet been felt. Heavy shipments of American Apples arrived in U.K. during the Aust. and N.Z. season, and must have resulted in heavy losses to the shippers: prices at American packing sheds were 65 cents normally (2/8 a case). It may be some time before foreign shippers realise that their shipments to U.K. depend entirely on the quantities available in U.K. and the Dominions.

The Australian Embargo.

A trade treaty was being negotiated between Australia and N.Z., the terms of which would be disclosed to both Parliaments in October. The correct attitude regarding the embargo had been stated by Hon. W. Downie Stewart, thus:—"The embargo has not been imposed to protect N.Z. fruitgrowers, as such would be attended to by tariffs. If at any time the Australian Government can see its way to remove the embargo on N.Z. fruit and plants, the Dominion Government would gladly consider the removal of the embargo now imposed on Australian products."

The Federation was seeking to open a market for Apples and Pears in Eastern U.S.A. during May, June and July, and must be free from the possibility of contamination with fruit fly. As increasihg quantities of fruit from Aust. and N.Z. were being received by U.K., the alternative outlets for N.Z. fruits were Argentine, U.S.A. and Australia. As Australia did not want N.Z. Apples and as it was only reasonable to expect reciprocity, the Federation considered the embargo justified.

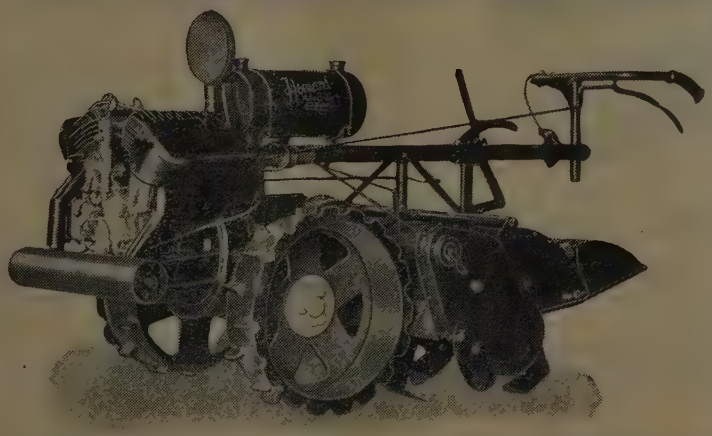
The report further stated that the increase in the exchange to 25 per cent. was beneficial to N.Z. growers.

Local Markets.

There was a noticeable improvement in the local prices: the supplies were normal. The Dominion Mark scheme was an important factor. Improved grading and better distribu-

(Continued on page 592)

Maximum Results at a Minimum Cost by using
THE HOWARD ROTARY HOE



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THE VICTORIAN FRUIT MARKETING ASSOCIATION.

The monthly meeting of the Executive of the Victorian Fruit Marketing Association was held at Melbourne on September 26.

Present: Messrs. G. W. Brown (Chairman), F. R. Mellor, J. B. Mills, J. W. Barker, F. Cave, A. S. Harrison, H. Ford, J. W. Bailey, W. H. Carne, K. Eagle, J. M. Ward (Supt. of Horticulture), and the Secretary, R. E. Boardman. Apologies from Messrs. C. H. Jost and E. I. Lawford. The Chairman extended a cordial welcome to Mr. Barker on his return from abroad.

The report of the Sub-Committee re the Export Control Bill was adopted. This provided for a board of eight growers, four shippers and one Government nominee, the continuance of the export trade and safeguarding the interests of shippers. It was decided to send a copy to the other States for their views.

It was decided to rebate for this season, growers' levy to the V.F.M.A. and to reduce the shippers' levy from 3/16d. to ¼d. Messrs. Brown and Bailey were appointed representatives of the V.F.M.A. to the Apple and Pear Export Council meeting at Sydney.

At the annual meeting the same afternoon, Mr. Brown presiding, the annual report was adopted. This dealt with the freedom of duty on crude oil for spraying purposes; withdrawal of claim for retrospective sales tax on fruit wrapping paper; research re fruit tree stocks and by-products; successful field days; Apple case standardisation; full weight of fruit in cases; Apple and Pear gift scheme; better handling of fruit on wharves—freight rates and distribution abroad; trade with the East, etc.

Election of Officers.—All grower members were re-elected without opposition. Mr. Carne congratulated Mr. Brown on his reappointment as President. (Applause.) Members of the Executive are—Grower members: H. Ford, J. W. Bailey, W. H. Carne, K. V. Eagle, W. P. Hutchinson, C. H. Jost, E. I. Lawford, W. A. Webb. A postal ballot for shipper members having been taken, Messrs. A. S. Harrison, J. Barker, F. Cave, F. R. Mellor, J. B. Mills, and C. J. Parnham were re-elected.

Interstate Freight.—On the motion of Messrs. Bailey and Lawford, it was decided to apply to the N.S.W. Railway Commissioners requesting them to reduce their 21 ton minimum basis. In Victoria and Queensland the minimum was six tons.

The financial statement was received and adopted. A hearty vote of thanks was accorded the Auditors, Messrs. F. Cave and E. I. Lawford.

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Atlantic Bordeaux Spreader can be used on citrus trees, for the control of White Wax, White Louse, Brown Scale, and Red Scale, in the proportion of 1 gallon of Atlantic to 50 gallons of water. It is ideal as a spreader for Nicotine Sulphate, Arsenate of Lead, etc.
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BORDEAUX SPREADER
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ADS 2.27

DRIED FRUITS INDUSTRY.

New South Wales Regulations.

Sydney, 27/9/33.—Leave to introduce a Bill to make provision for the regulation of the dried fruits industry and reconstitute the New South Wales Dried Fruits Board was sought by the Minister of Agriculture in the Legislative Assembly to-day. The Minister explained that rulings by the High Court and the Privy Council had made necessary the amendments proposed in the Bill.

The motion was carried, and the Bill was introduced and read a first time.

Young (N.S.W.).—In the annual report of the Young Cool Store Co-operative Society Ltd., a loss of £386 for the year is reported. Nevertheless, the directors express the belief that future operations will show a profit: less export is expected and consequently greater use of the cool store. For space rent, £387 was received, but this was barely sufficient to cover interest. There was a surplus in the fruit packing department. The accumulated deficiency is £2,396.

AUSTRALIAN DRIED FRUITS.

The Commonwealth Dried Fruits Export Control Board report that during the week ended September 21 sales of Australian dried fruits in Great Britain covered 1,086 tons. Sultanas averaged £38/9/3 for 546 tons, while 248 tons Currants, just arrived, were cleared at £37/5/- per ton; 292 tons Lexias, also recently arrived, made the satisfactory price of £37 18/4 per ton. The demand continues steady.

Australian and New Zealand Fruit Trade

Market Notes and News — Prices, etc.

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NEW SOUTH WALES.

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Associated Growers' Selling Agency Ltd.
Black, H., & Son.
Chilton, F.
Fruiterers' Supply Company.
Griffiths Fruit Supply Ltd.
Holmes, J.
Hop Lee & Co. Ltd.
Lockart, H. C.
Moss, J., & Sons.
Musgrove, W., & Son.
McEnally, R.
Rogers, F. H. G.
Slater, Jas.
Schuster, A. E.
Smith, L.
Stubbs, J.
Young, Frank.

VICTORIA.

Melbourne:

Bell, Banson Pty. Ltd., Wholesale Fruit Market.
Cave, F., & Co. Pty. Ltd., Wholesale Fruit Market
Davis, J., Pty. Ltd., Wholesale Fruit Market.
Frankel, H. & S., Wholesale Fruit Market.
Lister, G., Pty. Ltd., Wholesale Fruit Market.
Millis, A., & Sons, Wholesale Fruit Market.
McLean, N. N., Pty. Ltd.
Mumford, J. G., Wholesale Fruit Market.
Pang & Co. Ltd., H. Louey, Wholesale Fruit Market.
Patrikeos, P. A., Wholesale Fruit Market.
Pitt, A. E.
Producers' Dist. Society, Wholesale Fruit Market.
Ross, J. W., Wholesale Fruit Market.
Sang Goon & Co., Wholesale Fruit Market.
Silbert, Sharp & Davies, Wholesale Fruit Market.
Stott & Sons, T., Wholesale Fruit Market.
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market
Tong, W. S., Wholesale Fruit Market.
Vear, F. W., Pty. Ltd.
Wade, H. M., & Co., Wholesale Fruit Market.
Wilson, H., Pty. Ltd., Wholesale Fruit Market.
Wing, R. A., & Co., Wholesale Fruit Market.
Wing, Young & Co., Wholesale Fruit Market.
Woolf, G., Wholesale Fruit Market.
Wholesale Fruit Merchants' Assn., J. D. Fraser, Temple Court, 428 Collins Street, Melbourne.
Young, J. H., & Co. Pty., Wholesale Fruit Market.

QUEENSLAND.

Brisbane:

Barr, A. S., Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Jacklyn & Jacklyn.
Robsons Ltd., Fruit Exchange.
Winters, E.

TASMANIA.

Hobart:

Eric Burgess Pty. Ltd., 88 Collins Street, Hobart.
E. R. Cottier Pty. Ltd., Temple Place, Macquarie Street
Jones, H., Co. Ltd., Fruit Exporters.
Peacock, W. D., & Co., Fruit Exporters, and at London.

Launceston:

Bender & Co. Pty. Ltd., 100 Elizabeth Street.

NEW ZEALAND.

Dunedin:

Co-operative Fruitgrowers of Otago Ltd.

GREAT BRITAIN.

Hull:

London and North-Eastern Railway, 7 Bridge-street, Sydney, N.S.W.

London:

Lewis, E. H., & Son Ltd., Covent Garden, London.
Margetson & Co. Ltd., Covent Garden, London.
Monro, Geo., Ltd., Covent Garden.
Pask, Cornish & Smart, London.
Port of London (Capt. A. W. Pearse, 10 Bligh St., Sydney).
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
White & Son Ltd., London Fruit Exchange, Spitalfields, E.1.

Manchester:

The Port of Manchester Rep., W. J. Wade, 8 Bridge Street, Sydney.

GERMANY.

Bremen:

Fruchthandel, Gesellschaft.

Hamburg:

Astheimer, P. H., & Son, Fruchthof.
Gustav Bey, Hamburg.
Int. Fruit Import Gesellschaft.
Lutten, J. H., & Sohn, Hamburg.
Stier, Aug., Fruchthof.
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FRUIT AT MELBOURNE ROYAL SHOW.

THERE was an excellent display of fruit at the Melbourne Royal Show in September. The Orient Jubilee Cup was won by R. A. W. Bailey (Narre Warren), who was awarded 98 points here and 197 in England; total of 295. Messrs. W. H. and D. F. Calvert, of Tasmania, were second with 285 points. The Illawarra Orchard of West Australia being third (284 points). The Apple-packing competition for school children attending packing classes and the trophy presented by the Fruit Exporters' Handling Committee was won by East Burwood with 95 points; Pakenham (Army-road school) was second with 93, and Harcourt third with 91 points. The packing was remarkably good and reflected great credit on all concerned. The best individual pack was shown by Mary Cook, Pakenham, with Joe Freeman, East Burwood, second, and Annie Greenwood, Harcourt, third.

The dish Apples were of very high quality, varieties including Jonathan, Dunns, Delicious, Yates, Granny Smith, etc. The tray classes were keenly contested, the quality being exceptionally good. The Two Bays Nursery was successful with two trays of dessert and two trays of culinary Apples, showing Dunns, Jonathan, Delicious, Granny Smith. Some nice Pears were shown, but they did not reach the standard of the Apples. W. G. Whicker, Diamond Creek, won the prize for four varieties of dessert Pears, showing D'Anjou, Packhams, B. Bosc, and W. Nelis. A. E. Thiele came second with W. Nelis, B.B., Packhams, and W. Cole. Other prize winners included J. D. Grant, K. J. Grant, P. May, L. M. Watt, W. Mock, W. J. Miller, K. Cleine, C. A. Benton, B. G. Benton & Son, W. A. Thiele, H. Zerbe.

Citrus fruit exhibits were not as numerous as were hoped. There was only one exhibit of the Rupert Watson Challenge Shield, that of the Curlwaa Co-operative Packing Society Ltd.—a highly creditable display. On a pyramid of fruit was superimposed a huge umbrella, the ribs being composed of Oranges and the rim Grapefruit: included were Golden Nugget and Washington Navels, Mediterranean Sweets, Joppas, Lisbon and Eureka Lemons, Mandarins, Marsh's Seedless and Triumph Grapefruit.

Renmark Fruitgrowers' Co-operated Ltd. came first in the export packing competition; Aurora Packing Co., 2nd; and Irymple Packing Co., 3rd. The fruit opened up remarkably well after being in cold store for two months.

Other prize winners in the citrus section included E. F. Page, A. R. Smart, G. A. Hill, Wormwell Bros., A. P. Webb, W. A. Thiele. and V. Roberts.

The exhibits of dried fruits were numerous and of high quality. Sultanas, Lexias and Currants were displayed, also dried tree fruits—Peaches, Apricots, Nectarines and Prunes, etc. For the best collection of dried fruits, the prize was awarded to the Irymple Packing Co. Ltd. Prize-winners in the dried fruit section also included Mildura Co-op. Fruit Co., Nyah Fruitgrowers' Co-op., Aurora Packing Co., Melbourne Dried Fruits Pty. Ltd.; Soft-shell Almonds, R. Lennie.

Exhibits of Interest to Fruitgrowers.

A. Victor Leggo & Co.—This firm exhibited a complete range of fruit sprays manufactured by them. Of particular interest was the exhibit of codlin moth bands showing the manner in which they should be placed on the tree, also bands sent down by Mr. J. H. Lang, of Harcourt, showing the number of codlin moths caught this year on one band. It is interesting to note that Mr. C. French, Government Biologist, has been successful with experiments on Peach trees for Peach moth. One hundred and seventy Peach moths were taken out of one band. "Vallo" copper sulphate "Neige" crystals were also exhibited. Messrs. H. G. Smith and T. Gorrie, the firm's country representatives, had the pleasure of meeting many orchardists from Victorian and interstate districts.

Mr. D. Harvey exhibited a complete range of orchard implements, fruit graders and various kinds of fruit processing equipment. Two outstanding exhibits were the "Harvey" orchard reversible disc plough and the "Harvey" two plate depth regulator plough gang attachment for one-way disc cultivators. Mr. D. Harvey recently returned from a trip to Queensland, where he investigated the complaints in regard to spray residue on Victorian Apples. He expects to place on the market shortly an Apple washing machine which will overcome these complaints. This Apple-washing machine has been thoroughly tested out and has proved highly satisfactory, anyone desirous of seeing this machine in actual working operation can do so at their workshop.

Nitrogen Fertilisers Pty. Ltd. had an excellent display of Apples, Oranges, dried fruits and canned fruits. Much valuable information was given by the firm's representative, Mr. R. Boyle, in regard to the various fertilisers required by the fruits mentioned.

Vacuum Oil Co. exhibited their red and white sprays for winter and summer spraying respectively. Other items of general interest on this stand were an excellent working model of the Sydney Harbor bridge, and a model aeroplane on which the instructions to pilot were demonstrated. Messrs. W. H. Murray and J. Perlman, the firm's representatives, who are well known to Australian growers, renewed mutual acquaintances.

Mr. F. R. Mellor had a complete range of spray materials manufactured by Messrs. Wm. Cooper and Nephews, for which he is the Victorian agent, including Arsinette, Bordinette, Alboleum. He also exhibited the "Amazon" high pressure spray hose, Bayview fruit picking bag, "Gay" sprinklers for irrigating orchards.

The "Lightning" Fruit Grader Co. had working models of their fruit graders and various packing house equipment, Apple washing machines, "Lightning" sizers, lidding presses, clamp trucks, paper holders, etc. A complete range of their new orchard implements specially designed to suit the requirements of orchardists were also exhibited.

International Harvester Co., in addition to orchard implements, had working demonstrations of the new "McCormack Deering" power sprayer. This is available as a four-wheel outfit and a two-wheel outfit. These new sprayers created considerable interest.

The Shell Co. of Australia demonstrated their red oil which is recommended for winter spraying, and their white spray for summer spraying. Many enquiries were received in regard to these sprays. Shell spirit and lubricating oils, and "Pennant" kerosene, were also other products of interest.

On the stand of **Messrs. R. Werner & Co.,** all types of refrigerating machinery were shown in operation. Of

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One HARVEY 9ft. 6in. TRACTOR POWER LIFT SPRING TOOTH CULTIVATOR. No further use. Any reasonable offer. HAROLD SYMES, "Leura" Orchard, Harcourt.

special interest to fruitgrowers was their enclosed type ammonia compressor suitable for full automatic control. This compressor is available in sizes from 10 ton upwards.

The Howard Rotary Hoe, which is an ideal machine for orchard cultivation, was demonstrated on behalf of the manufacturers, The Austral Auto Cultivators Ltd., Northmead, Sydney, by **E. Hassett & Son,** of Bourke-street, Melbourne.

The Bave-u power sprayer, the pioneer Australian-made power sprayer was shown by **Messrs. Russell & Co.,** at their usual stand in Smith-street.

Of particular interest on the stand of the **Gibbins Farm Implement Co.,** was the "Gibbins" reversible disc plough, which is fitted with adjustable undercut, a patent rear floating disc, together with a patent automatically-fitted side draught control. Other orchard implements were also on show.

Messrs. Massey-Harris Farm Machinery Co. demonstrated orchard and vineyard implements which included, a complete range of ploughs, disc harrows, grape and berry hoes, Strawberry harrows, orchard cultivators, scufflers, etc.

At the stand of **H. V. McKay,** the "Sunglow" low-wheel tyne cultivator and "Sunpearl" disc cultivator, were of particular interest. In addition there was a complete range of orchard implements to suit every cultivating job.

Trewhella Bros. occupied their usual stand at 98 Smith-street, and gave interesting demonstrations during the Show of tree and stump pulling operations with the "Trewhella" monkey jacks and monkey winches. These machines are powerful and effective, possessing great strength and durability, but are easy for man or boy to operate.

The Gerrard Wire Tying Company gave demonstrations during the Show of their wire tying machines and wire steel strapping. Much valuable information was imparted by their representative, Mr. Gregory, who is well known to growers throughout Australia. Fruit packing demonstrations were given and the attendances during the period set apart for this purpose were most encouraging to the Gerrard Company.

On this stand we also noted the "Gerrard" patent case which is being manufactured and distributed throughout Australia by Wooden Containers and General Agency Pty. Ltd., of 379 Collins-street, Melbourne. The manager, Mr. R. J. Watkins, was in attendance, and pointed out the main features of the "Gerrard" patent box. A Harvey fruit grader was also in operation on this stand.

Ronaldson Bros. and Tippett, of Ballarat, in conjunction with their other machinery, exhibited orchard spray plants. Their power spraying outfits are made in eight different sizes and types, and are the result of their co-operation with leading growers in Australia to produce a spray pump combining all the practical features for good spraying.

Welch, Perrin & Co. included at their stand spray pumps suitable for bucket, barrel or vats, knapsack sprayers, also the "Ladywood" underarm sprayer.

THRIPS INVESTIGATION.—Continued from page 555.

The question of incorporating suitable oils with a dust is also being investigated, and the possibility of liquid sprays. Tests will be made with certain of these materials in orchards during the spring, in Victoria and South Australia.

Preliminary tests have been made with Rotenone by Mr. Andrewartha. Rotenone is a crystalline substance which is extracted from the roots of certain species of Derris, particularly D. elliptica. It has important toxic properties for insects, both as a contact poison and as a stomach poison. On the other hand, it is non-toxic to man. Its usefulness as an insecticide is of very recent development. Mr. Wheeler has extracted Rotenone from crushed, dried, Derris roots by using the carbon tetrachloride method. One sample gave 2.1% rotenone content. A sample of another species gave 4% rotenone content.

During the spring of 1932, Mr. D. V. Walters, of the Commonwealth Research Station, Merbein, kindly made some observations on the numbers of thrips present in vines dusted with sulphur-pyrethrum dust. The number of thrips was small even on untreated vines. Experiments with treatment of vines will be continued this spring in other centres.

The period during whcih these insecticides can be satisfactorily tested is naturally restricted to the spring and early summer months. As the present spring will be the first full period available for these tests, they will be discussed more fully in the second annual report.

Miss Steele is preparing a concise account of the blossom thrips of economic importance occurring in Australia.

JAMES DAVIDSON,
Head, Department of Entomology.
Waite Agricultural Research Institute,
University of Adelaide.
September 20, 1933.

A hearty vote of thanks was conveyed to Dr. Davidson, on the motion of Mr. Brown (V.F.M.A.), and Jas. Allan, President, National Rose Society.

The financial statement was received and adopted, and a vote of thanks conveyed to the Auditors, Messrs. F. Cave and E. I. Lawford.

South Australia.

Adelaide (23/9/33).—Apples eating 5/- to 7/- case; cooking 5/- to 6/-. Bananas, Q'land, 24/- to 26/- case. Lemons 3/- to 6/- case. Almonds 10/- doz. lbs. Oranges, common 4/- case, blood Oranges 4/- case. Mandarins 6/- to 8/-, Navels 5/- to 7/-, Poorman 3/-. Passions 30/- case.

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

Apples, Peaches, Pears, Plums, Apricots, Citrus, etc., packed and despatched to all parts of the World.

Overseas Orders receive careful and prompt attention.

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"FRUIT WORLD ANNUAL."

Comprehensive review of Australian and New Zealand fruit industry

"The Fruit World," Box 1944 G.P.O., Melbourne.

NEW SOUTH WALES.

The market representative of the N.S.W. Fruitgrowers' Federation (Mr. L. T. Pearce) quotes prices as under for the week ended September 25.

Apples (standard and special), Crofton (Tas.), 6/- to 10/-; Demo. (N.S.W. and Tas.), 6/- to 9/-; Del. (N.S. retail), 7/- to 14/-; (Tas. and Vic.), 7/- to 10/-; French Crab (Tas.), 5/- to 9/-; G. Smith (N.S.W., green), 3 in. and over, 10/- to 12/-; 2¾ to 2¾, 9/- to 12/-; 2¼ to 2⅝, 6/- to 7/6; R.B. (N.S.W.), 3 in., 7/- to 10/-; 2½ to 2¾, 8/- to 10/-; 2¼ to 2⅝, 4/- to 6/-; Sturmer (Tas.), 5/- to 7/6; Yates, 2½ to 2¾, 8/- to 10/-; 2¼ to 2⅝, 7/- to 8/-.

Pears, Jos., 8/- to 12/-; P.T., 9/- to 12/-; W. Cole, 7/-

F. Chilton, Established 1894.
Fruit Commission Agent,
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Highest Market Prices, Prompt Returns, Reliable Advice.
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Sound Judgment of Prices.
Prompt Returns - - - - - and Reliable Advice.
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Stencils on Application.
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Information and A/c Sales Promptly.
CITY MUNICIPAL MARKETS, SYDNEY.
References All Growers Throughout Australia.
Phone: MA 1955. Private: J 4401

Telephones: Est. 1896.
MA 4432, Epping 840. **Bankers:**
Bank of N.S.W., Haymarket.
H. BLACK & SON,
Licensed Farm Produce Agents,
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Consignments of Fruit, Tomatoes, and Other Produce Received for Sale.
Cases Sent on Application.
Cash and Account Sales Rendered Weekly.

FRUIT GROWERS—Seeking Expert Salesmanship, Satisfactory Results and Prompt Returns,
CONSIGN YOUR FRUIT TO
L. SMITH
Licensed Farm Produce Agents,
Bank References: Commercial Bank, Elizabeth Street and N.S.W. Fruitgrowers.
Shipping No. 235. **Phone: M 3045**

Telephone MA 3846. **Established 1900.**
W. Musgrove & Son, Licensed Farm Produce Agents,
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Reference—Bank New South Wales, Haymarket.
Our Motto—Quick Sales and Prompt Settlements.
You will be Satisfied by Giving us a Trial.
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Queensland, Northern Rivers, **No. 18.**

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Highest Ruling Rates.
Phone: MA 1828.

to 12/-; W.N. (N.S.W., Vic.), 2½ to 2¾, 8/- to 10/-; 2 in. to 2¾, 6/- to 8/-. 12,800 cases Apples arriving from Tasmania next day on clear market, improved prices expected. Yates expected from Victoria, will probably affect prices for Demo., G.S. plentiful, affecting the demand for F. Crab. Most Packham Pears are showing waste, buyers cautious .

Bananas, Q. nines and eights, 18/- to 20/-; sevens, 15/- to 17/-; N.S.W., 6 in., 12/- to 14/-; Norfolk Island, small, to 7 in., 10/- to 15/-. Grapefruit, N.S.W., 4/- to 6/-; special, Marsh's, 7/- to 10/-. Lemons, 96 to 138, 4/- to 5/-; 150 to 216, 5/- to 7/-; 234 to 275, 3/6 to 5/-; inland and cured, 6/- to 9/-. Mandarins, standard, 4/- to 6/-; special, 7/- upwards. Navels, 5/- to 7/- bus., in bags (plain), 8/- to 9/-; (standard), 9/- to 10/-; in 2 bus. crates, 9/- to 11/-. Oranges, various, 2/- to 5/6. Loquats, 3/- to 5/- per half, Papaws, 6/- to 8/-; colored, 9/-. Pines, 5/- to 8/-. Passions, N.S.W., 4/6 to 6/-, few to 9/-, inferior 2/6 to 4/- per half. Strawberries (N.S.W.), 9/- to 18/- per doz. punn.; (Q.) trays, 2/- to 5/-. Cucumbers, 8/- to 10/- bus. Tomatoes, Q'land (Bowen and Proserpine), 8/- to 10/-; Cleveland, 10/- to 12/-, few to 14/-; N.S.W. glasshouse, 14/- to 19/-.

SYDNEY MARKET.

Month of September.

BUSINESS generally showed little improvement on the previous month, and the demand for all varieties compared unfavorably with that of past seasons for the same period of the year. Exports of all fruits fell off considerably. No shipments of Oranges were made to the United Kingdom or Canada owing to the low values prevailing on the markets of these countries.

Exports of both Apples and Citrus to the East were also considerably reduced. This was due to the low prices obtaining for fruit arriving in the East from other sources, mainly U.S.A. Since the fall in the value of the American dollar, Australian shippers have been unable to compete in price with the U.S.A., and it is imperative that there must be a reduction in costs and particularly freights, if Australia is to regain her trade with the East. The duties now placed on Australian fruits being imported into Java have also meant a loss of business.

A small shipment of Valencia Oranges to U.K. will be leaving by the s.s. "Clan Macdougal" on 29/9/33. At the time of writing it is impossible to give definite figures, but it is expected that 7,000 or 8,000 cases will be shipped.

Apples.—Supplies throughout the month were light as compared to normal years, but while there was a fair demand in the early part of the month, enquiry fell off later and prices came back a little despite the lighter supplies.

Democrats, Yates and Croftons sold at 6/- to 9/-, with a few brands to 10/-, Sturmers and Scarlets 5/- to 7/6. Crabs closed at 5/- to 9/- (green), with colored fruit at 3/- to 6/-. N.S.W. Grannies were selling at 6/- to 13/-, but were unsteady and inclined to ease. Romes sold at 5/- to 11/-, and Delicious at 7/- to 14/- for good brands.

Bananas were only in fair supply throughout the month, but with a dull demand prices eased. Shipments arrived from Norfolk Island as usual, but only a small consignment of Fijis came to hand to meet a poor enquiry.

Grapefruit.—Arrivals were normal and demand likewise, and values showed little alteration, Marsh Seedless of good sizes selling to 10/-. Small fruit was hard to move.

Lemons.—Supplies were not heavy, while the demand was quiet for the first two weeks, after which an improvement could be noticed. Good cured Lemons are expected to meet a better market in October, but inferior lines are not likely to improve. Factories have now finished buying their peel supplies.

Mandarins.—Supplies fell off each week and there was a shortage of good fruit of large sizes, which moved up in value to 10/- per case, with a few brands higher. Small fruit was not wanted even at low values.

Oranges.—Supplies of both Navels and Commons were heavy, while Valencias also came on to the market. Navels moved up in the early part of the month, due to a temporary falling off in arrivals owing to wet weather, but when consignments increased to normal, prices came back. The increasing quantity of Navels being marketed in bags undoubtedly has affected prices and growers would be well advised to seriously consider the question of preventing the sale of Oranges packed in bags. There was a fair sale for good Commons of sizes 113 to 150, but smaller fruit could only be moved at low prices. Valencias were not wanted by retailers, who preferred Navels and Commons, but limited business was done with shippers and country order buyers.

Passionfruit.—There was a scarcity of really choice fruit and prices moved up to 10/- per box. Inferior lines were not wanted and sold at low prices.

Pears.—With the light supplies, prices were steady. Demand was practically limited to choice fruit and Packhams, Josephines and Coles sold to 14/- for best brands.

Pineapples.—Supplies increased during the month, and values eased, 18's to 24's selling at 7/- per case, with other counts at 6/-.

Tomatoes.—Arrivals continued light with a firm demand for choice lines. Good Queensland Tomatoes sold to 10/- per box with hothouse to 19/-.—P. S. Macdermott.

During October the full moon comes in on Wednesday, 4th.

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PHONE: MA. 1363 Telegraphic Address—"Citrus" Sydney.

PACKING OF BANANAS.

Dirty Sheds a Source of Trouble.

WHILE THERE MAY at times be reasons for the erection of inadequate and unsuitable Banana packing sheds, there can be no reasonable excuse for the unsatisfactory manner and dirty condition in which a number of sheds are kept, points out the senior departmental fruit instructor stationed at Murwillumbah in an article in the "N.S.W. Agricultural Gazette."

Very little attention is given to some sheds and their immediate surroundings; the floors are dirty and discarded fruit is left lying about and becomes trodden into the earth floors. Stalks of bunches, together with rejected fruit, diseased or otherwise, are generally thrown just clear of the shed through doorways or windows and allowed to rot and decay there, producing a muck heap and giving off objectionable odors. Growers handling fruit in these surroundings would be surprised, perhaps, to learn that such conditions may be responsible for diseases and wastage in the cased fruit after it leaves the packing shed.

Thus the wisdom of keeping the shed and its surroundings clean. The benches and floors should be swept out regularly after packing is completed and all the debris, including rejected fruit and stalks, removed far away from the sheds. It could, perhaps, be buried in the plantation. The sheds might also be sprayed periodically with a disinfectant such as formalin. Where the floor is covered with bags or sacking for receiving the fruit, these should be discarded when they get into a dirty condition, or else cleansed by dipping in boiling water or a disinfectant before further use, Some inexpensive material such as dried grass, which could be destroyed after packing is finished, would be preferable for cushioning the floor. Use of Banana leaves should be avoided, for, although they serve the purpose, it is most likely that in other ways they are definitely detrimental.

"Handed-off" fruit which is kept for any length of time before packing in open or semi-open sheds would be all the better if covered with a clean, light tarpaulin or sheet.

Spray materials, and particularly poisons, should be kept away from all fruit and other materials in a secluded part of the shed.

BIRTHDAY WISHES TO A MOTORIST.

"May your gas tank ne'er be empty
When you're ten miles out of town,
May queer knockings in the engine
Never bring a worried frown,
May the road wind smooth before you,
Not a puncture mar your bliss,
Could a body wish a body
A better wish than this?"

COMMERCIAL INQUIRIES.

The following commercial inquiries have been received by the Department of Commerce. No responsibility is accepted as to the standing of inquirers, with whom firms interested are requested to communicate direct. References accompany those inquiries marked (a), and interested firms will be supplied, in confidence, with information as to the general standing of inquirers on application to the Department of Commerce, A.M.P. Chambers, 419 Collins-street, Melbourne.

(a) **Messrs. Spiteri Mallia & Sons,** 28 and 152 Strada Stretta, Valletta, Malta, desire to get in touch with Australian exporters of Apples and other fresh fruits and frozen mutton.

(a) **Messrs. A. W. Henri,** of Monument House, 16 Monument-street, London, E.C.3, desire to get in touch with Australian exporters of canned products, particularly canned fruits.

(a) **Messrs. John Fox & Co.,** Neal-street, Covent Garden, London, W.C.2, desire to act as selling broker for Australian Apple exporters.

(a) **Messrs. Hans Claussen,** A/s of Ovre Slotgt 5, Oslo, Norway, desire to get in touch with Australian Apple exporters.

(a) **Messrs. M. Crellinson & Sons,** 1665 Trudell-avenue, Montreal, Canada, desire to get in touch with Australian exporters of fresh fruits and vegetables.

(a) **Mr. A. F. Fitch,** of 1-4 Great Tower-street, London, E.C.3, desire to secure agencies in the United Kingdom for Australian fruit canners.

(a) **Messrs. Edwin Fischel & Co. Ltd.,** 20-21 St. Dunstan's Hill, London, E.C.3, desire to get in touch with Australian exporters of canned and dried fruits.

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"Fruit World Annual"
Comprehensive review of Australian and New Zealand fruit industry.
"The Fruit World," Box 1944 G.P.O., Melbourne.

Motor Trucks for the Fruit Industry.

COMMERCIAL MOTOR TRUCKS are now an essential part of the equipment of fruitgrowers.

The prices of trucks are quoted at chassis price, which includes tyres, petrol tank, head lamps, radiator, mud guards, bonnet and steering wheel and column, but do not include such things as cabin, cab-doors, windscreen, seats, bumper bars, or anything in the way of body work. These last mentioned are made to ones own specifications, and to suit different types of work.

So, when one hears of trucks quoted at £300, there is still quite an amount to be added for the bodywork and accessories.

* * * * *

Fargo Trucks.—Users of Fargo trucks will be pleased to know that these trucks will again be on the Melbourne market about Christmas time. As yet, specification of their new trucks have not come to hand; all we know is that they have been shipped; so we ought to be able to publish a few details in the November issue.

* * * * *

Morris Commercial Vehicles.—Take the Morris Commercial Vehicles for instance: there are the 1 ton, 30 cwt., 2 and 3 ton models. The 1 ton chasis model is a 4 cylinder engine, developing up to 32 b.h.p. with a wheelbase of 10 feet 2 inches, and an overall length of 13 feet 7 inches.

The 30 cwt., 2 and 3 ton chassis models are a particularly good proposition. They are all 6 cylinder engines at 25 h.p. developing 55 b.h.p., and have four forward gears like the 4 cylinder job. In the 30 cwt. and 2 ton range, one can choose between the normal control model or the forward control, which has the cabin directly over the engine, thus giving extra loading space behind, while the 3 ton chassis has the forward control only.

The wheelbases of the 6 cylinder trucks are 11 feet 2 inches, and 13 feet 6 inches, while the overall measurements range from 16 feet 2 inches to 20 feet 2 inches. The turning circle for the 11 feet 2 inches wheelbase truck is 48 feet, and that of the 13 feet 6 inches being 55 feet.

* * * * *

British Bedford Trucks.—British Bedford trucks obtain a special 10 per cent. rebate in registration fees allowed to all trucks that are made throughout, within the British Isles, and are a very attractive proposition. These trucks have 6 cylinder engines of 26 h.p. that develop up to 57 b.h.p. with three forward gears, obtainable in three loading capacity types:—the 30/35 cwt. on a 131 inch wheelbase, and the 2 to 2½ ton on a 131 inch and 157 inch wheelbase.

One very attractive feature of the cabins that can be fitted on the 2/2½ ton trucks that have a 77 inch cabin width, is the sleeping accommodation for two persons. The seat forms one bunk, and the back of the seat swinging up towards the roof forming another bunk, and when fitted with the full door and winding windows, makes a truly snug sleeping compartment.

* * * * *

Ford Motor Trucks.—The Ford Motor Co. of Australia is not letting the grass grow under its feet, particularly where price and petrol consumption are concerned.

This company is putting their faith in 4 cylinder engines of 24 h.p., which develop 50 brake horse power, with four forward gears as well as reverse. Another feature is being able to have an 8 cylinder 30 h.p.-75 b.h.p. engine installed if a more powerful motor is required without changing the chassis.

Fords are made in seven types, such as:—One ton, 131½ inch W.B.; 1½ ton, 131½ inch W.B.; 2 tons, 131½ inch W.B., with dual rear wheels; 1½ ton, 157 inch W.B.; 2 tons, 157 inch W.B., with dual wheel; 3 ton, dual wheeled, semi trailer; and also a 5 ton dual wheel 131½ inch W.B. chassis. The company is also quoting a four wheel trailer with a capacity of 3 tons. The cabs can be open, or had with full door and wind-up window.

* * * * *

Chevrolet Trucks.—The Chevrolet 1933 Rugged Truck is built in two chassis, the 1½ ton 131 inch W.B., and the 2 ton 157 inch W.B., which have overall lengths of 193 inch and 219 inches, respectively. These trucks are fitted with 6 cylinder engines, which develop 56 brake horse power, and have a four speed transmission. The Chevrolet being a General Motors production, can be purchased on the General Acceptance Corporation Plan from all Chevrolet dealers at low finance charges.

* * * * *

Leyland Trucks.—Leyland trucks are very popular. In adding the Leyland Cub Goods Model to its already large range of commercial vehicles, the company has been influenced by the growing need for a really high-grade chassis of 2 ton capacity. Where cost per mile is an important index of operating economy, the "Cub" will win approval. Designed and built by the Leyland craftsmen, it possesses to an equivalent degree the established characteristics of reliability, and long life, for which the heavier types are so justly famous. The Leyland Cub chassis is built in three models, each of 2 ton capacity. They are equipped with a 6 cylinder engine of 27 h.p. developing 60 b.h.p., and has the usual four forward gears and one reverse. The footbrake operates hydraulic brakes on all four wheels, whilst the hand-brake operates independent internal expanding shoes in the rear wheel drums by mechanical linkage.

* * * * *

Reo Speed Waggons.—The Reo factory are marketing five models in chassis, the B.N., 1A, 1C, 1B and 1D. These models are an assortment of 4 and 6 cylinder engines, both of 23 h.p., but developing a b.h.p. of 51 and 68 respectively. The "BN" model is a 6 cylinder truck with three forward gears in an 130 inch W.B. chassis. The "1A and 1C" models are 4 cylinder of 51 b.h.p., with four forward gears; while the 1B and 1D are 6 cylinder jobs with four forward gears.

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The motor-car is probably the average man's second largest investment. Motor spirit plays a very important part in getting the most out of this investment and protecting it. In the use of cheap, inferior, non-standardised fuels, the motorist runs the risk of greater costs throughout the year. When a motorist runs his car for 100 miles, even assuming he gets 20 miles to the gallon, he uses five gallons of petrol. Actually he saves only 5d. if he buys inferior petrol for one penny less per gallon than genuine first grades, but because inferior petrols frequently contain gum, sulphur and similar impurities, he has run the risk of incurring more than a pound's worth of repairs.

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"WE STRIVE TO PLEASE"

Victoria.

Melbourne (28/9/33).—Prices quoted yesterday by the Wholesale Fruit Merchants' Association were:—Apples, per case: Eating, to 6/-; cooking, 3/- to 4/-, special higher. Bananas: Q'land, per double case, green, 8's and 9's, 16/- to 17/-, special higher; 7's, 14/- to 15/-; 6's, 11/- to 12/-. Cucumbers, Q'land, 8/- to 12/- case. Lemons, per case, 4/- to 6/-; special, 7/-. Mandarins, N.S.W., 3/- to 5/-; Vic., to 8/-. Navel Oranges, N.S.W., 3/- to 5/- a case; Vic., best districts, 5/- to 9/-; other districts, 3/- to 5/-; S. Aust., 6/- to 10/-; special higher. Oranges: Common, 4/- to 6/-; Poorman's and Seville Oranges, 2/6 to 5/-. Grapefruit, 5/- to 9/-. Passions, 6/- to 10/- half case. Pineapples, double case, 6/- to 8/-. Papaws, 8/- to 10/- per double case. Tomatoes, W.A., 10/- to 12/- half case; S.A., 16/- to 17/-.

. The Melbourne market manager of the Federal Citrus Council of Australia reports that there is a slight improvement in the citrus market, but average standard grade Navel Oranges are still slow of sale at reduced prices. Sales yesterday were as follow:—Navels, average standard Vic. and N.S.W., 3/- to 5/-; a few to 6/-; selected standards, 4/6 to 8/-; a few to 9/-; special selected standards higher, to 11/-. Common Oranges, average standards, to 4/-; a few selected standards to 5/- and 6/-. Mandarins, good Vic. and S.A., 180-225, to 8/-, and 9/-, a few specially selected higher; small and inferior varieties difficult of sale; N.S.W. Emperors, nominally 3/- to 5/-. Grapefruit, average standards, 6/-, best counts; selected unwrapped standards, 54-75, to 7/- and 8/-, a few specially selected wrapped higher. Seville and Poorman Oranges, nominally 5/- very low of sale. Lemons, average standards 5/-, best counts, a few selected standards, 6/- a few specially selected higher.

TOMATOES UNDER GLASS IN N.S.W.

Mr. N. A. Hannaford, of Bulwarra, N.S.W., has 22 glasshouses that cover an area of 1 1-15 acre, under which he grows early Tomatoes. Mr. Hannaford arrived in the district from South Australia five years ago with a sound knowledge of glasshouse technique, and his work in the large glasshouses in the Bulwarra district has attracted much attention. Many labor-saving devices are used, amongst which is a rotary hoe which can be driven in between the 18-inch rows in the glasshouse from end to end. Under South Australian conditions, Mr. Hannaford is of opinion that the Chinese Red variety has proved best.

COLD STORAGE EXPERIMENTS IN ENGLAND.

Of Interest to Australia.

An important experiment of vital interest to Australia is being carried out at the Government research laboratory at Ditton, England. A model ship's hold with a capacity of 16,000 cub. ft. is being packed with 7,000 cases of English Apples. The same conditions are prevailing as on a voyage. Because of the absence of bulge, Australian boxes are being used. This, it is thought, is a factor affecting the air distribution. An even temperature will be maintained, 200 thermometers automatically registering externally the heat generated by the fruit and poisoning the air, the carbon dioxide inducing the development of moulds and bacteria. The idea behind the experiment i to discover best corrective methods in fruit shipments.

MELBOURNE FRUIT TRADE.

Wholesale Merchants form Company.

To assist in the better distribution of fruit in Melbourne, the fruit merchants now occupying the market square in the wholesale section have formed an organisation, registered as a company to attend to the necessary details. The chairman, Mr. H. M. Wade, states that the necessary articles have been prepared, and all arrangements are being steadily proceeded with.

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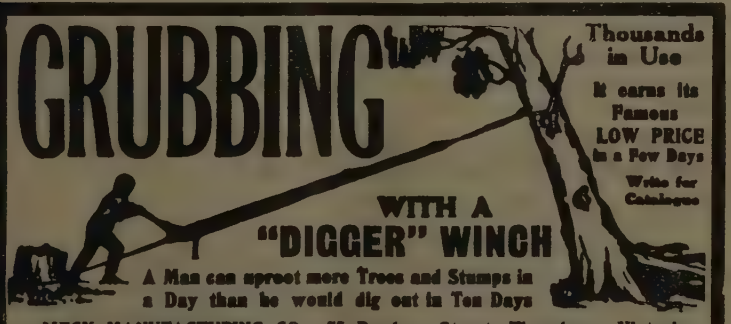

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Advertising and Distribution of Fruit

Standardisation of Publicity Increase Fruit Consumption.

Progressive Enterprise in New Zealand.

THE PROGRAMME for the standardisation and advertising of fruits has reached definite proportions in New Zealand. Standardised fruit is sold—at a premium—under a "Dominion Mark" Brand, of guaranteed quality.

On approaching the New Zealand Fruitgrowers' Federation for particulars, the general manager, Mr. H. E. Napier, has courteously given the following summary:—

The scheme is modelled on the National Mark Scheme of England, with this difference that whereas the National Mark Scheme there is controlled by the Ministry of Agriculture and Fisheries in conjunction with the National Farmers' Union, the Dominion Mark Scheme is run by the Fruitgrowers' Federation entirely, with assistance from the Department of Agriculture.

For many years an effort has been made in N.Z. to secure some form of local control in connection with the local markets. However, owing to that section of the Fruit Control Act dealing with local markets requiring a vote to be carried by 60 per cent. of those that vote, it was found impossible to bring the Act into operation. Eighteen months ago it was decided to embark on this voluntary scheme. Suitable labels were designed. Growers were called upon to pay in addition to the actual cost of the label—1d. per case advertising levy for the bushel case, and ½d. for the half-case.

The first year the advertising campaign was subsidised by the Federation to the extent of £1,000, and for the present season, an allocation was made of £500, and it is anticipated that in the future, the scheme will be self-supporting. Grading standards for all fruit packed under the scheme were drawn up—the Apples and Pears being on the same standard as those for export. For stone fruits, special grading regulations were designed, and it was clearly understood by all packers that these standards had to be maintained if the scheme was to be a success. In the first year it was a success, although certain faults were noticeable, and efforts were made to remedy these for the current season.

Probably the most serious fault was the lack of inspection, and it was noticeable that some growers did not pack to the regulations, and the presence of this fruit on the market under the label was inclined to break the confidence of the wholesale and retail trade. The second fault was one of distribution. While the fruit was being advertised, at times no "Dominion Mark" fruit was available, and some parts of the Dominion received very small quantities throughout the year. Serious consideration was given to these difficulties, and it was decided to take charge of the distribution of the fruit, and at the same time make available inspectors in the principal markets to inspect and distribute the fruit among the wholesale trade. This meant the development of an organisation capable of handling the quantities likely to be offered. These arrangements have been in operation for approximately three months and have proved very successful.

"Dominion Mark" fruit is obtaining a definite premium throughout the principal markets and the retailer is offering a guaranteed product backed by a National Advertising Campaign.

Attractive posters, streamers, show cards and a fruit book have been issued to retailers throughout the country who have joined the scheme and paid an annual subscription towards the advertising fund. This advertising subscription was collected by a personal canvass of a representative of the Federation. They are also using newspapers, screens, tramcars, and per medium of show window displays, etc., are doing everything not only to increase the consumption of fruit within the Dominion, but to convince the people that it pays to buy the best. By converting the public to the buying of quality fruit they hope to largely eliminate much of the rubbish which has done so much damage to the price of fruit generally during the last few years.

The total sum available in the campaign this year will amount to between £1,200 and £1,500. As the revenue is derived from the sale of labels throughout the year, it is not possible to completely budget before the campaign is commenced. The foundation has been laid which will be the forerunner of a comprehensive scheme of a voluntary system of fruit marketing which will mean a general improvement to growers and retailers. Growers must benefit from the efforts being made, but progress must go on even though some people benefit without making a corresponding contribution.

It can be said that the primary producer is probably the most difficult man to handle under a co-operative system, but most fruitgrowers realise that it is only by combined efforts that they can hope to lift their industry out of the rut of unpayable prices. There are many things that require attention and it will take years for many of these things to be fixed, but success can be obtained if the loyal co-operation of the growers themselves is forthcoming in its fullest measure.

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SPECIAL NOTICE TO FRUITGROWERS

All Members under Fidelity Bond

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms carrying on business in the

Wholesale Fruit Market, Melbourne

Stand numbers are as indicated in parentheses.

H. M. WADE & CO. (21).
T. STOTT & SONS (26).
H. L. E. LOVETT & CO. (23).
A. E. PITT (14).
J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
SILK BROS. PTY. LTD. (24-25).
J. G. MUMFORD (35).
GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
W. SWEENEY PTY. LTD. (33).
J. W. ROSS (13).
J. H. YOUNG & CO. PTY. LTD. (32).
DAVID SMITH PTY. LTD. (3).
SILBERT, SHARP & DAVIES PTY. LTD. (17)
A. MILLIS & SONS PTY. LTD. (34).
W. A. WATKINS (5).
P. A. PATRIKEOS (36).
G. WOOLF & SONS (29-30).
F. CAVE & CO. PTY. LTD. (9).
R. CORNISH & SONS (5).
J. HYMAN & SON (51).

GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

Correspondence is invited by the Association. J. D. FRASER, Secretary, 422-428 Collins St., Melbourne

NEW ZEALAND NOTES.

(Continued from page 597)

tion had resulted. Closer wholesale trade co-operation was still needed: Dominion Mark fruit was selling at a premium up to 1/- a case, and sometimes higher. An effective advertising campaign was being conducted by means of posters and illustrated material for retail shops, literature to school children, etc. More funds were needed: the allocation of £1,500 was insufficient, considering that many national advertisers provided £10,000 and more for this purpose. It was essential to develop the local market in view of low prices overseas.

The financial statement showed that despite the total income being £2,600 lower than last year, the nett profit was £2,577. The Federation handled goods and implements needed by growers. The excess of assets over liabilities showed the Federation to be in a strong financial position.

. . . .

The chairman of the N.Z. Fruit Export Control Board, said that the total export was 1,488,000 cases (170,000 less than the previous year), but a greater proportion (1,180,000 cases) was marketed in U.K. Bitter pit was more prevalent than usual, and there was too much large fruit (probably due to over use of nitrogenous manure). Growers had benefited by higher prices under the Goodwin distribution scheme. New markets were needed—the East was already well catered for: there would be a good opening in Belgium but for the luxury tax: there was very little opening for Apples in U.S.A., but the prospects were good for Pears. The increase in the levy from 1¼d. to 1⅝d. per case was justified by the exchange rate.

A bumper crop of fruit is expected in N.Z. in 1934.

N.Z. fruit now has to pay a duty of 5/- per case in Argentina. Difficulty is being experienced in securing payment for the fruit exported there.

Speaking at the annual conference of the N.Z. Fruitgrowers' Federation, the President, Mr. T. C. Brash, said that "fireblight" had existed in U.S.A. and Canada for 100 years. Millions of cases of fruit were exported annually with no record of fireblight having been carried on the fruit.

There were important Apple-growing districts in U.S.A., Canada and N.Z., entirely free of fire blight.

Mr. Walter Musgrove, of the City Fruit Markets, Sydney, will visit the Goulburn Valley during October, and will call on growers who have been doing business with his firm. Messrs. W. Musgrove and Sons are well-known to Victorian growers, and they do an extensive business in all varieties of fruit. Mr. Walter Musgrove is a member of the fruit section of the Chamber of Commerce, and has done much to develop a better and more profitable system of marketing fruit for the growers. While he is in the Goulburn Valley, he will probably make his headquarters at Maltby's Hotel, Shepparton.

Mr. F. C. Kennett, of the City Fruit Markets, Sydney, is one of the younger generation, who is making a name for himself as a growers' agent. He knows both ends of the fruit industry, as he is himself a grower with vineyards at Glenfield and Narellan. His father is a grower of table Grapes who has not been beaten wherever he has shown them in competition. Mr. Kennett also has a packing shed at Woombye, Queensland, for Pineapples, and does an extensive trade in tropical fruits from the North.

AUSTRALIAN ORANGES IN LONDON.

London (25/9/33).—The "Chitral's" South Australian, Victorian and New South Wales Navel Oranges were of good quality, though some were wasty. Sound fruit realised 13/- to 16/-, and a few 17/- per case.

Queensland.

Brisbane (25/9/33).—Prices were:—Pineapples, smooth-leaf 2/- to 4/- case, special 4/6, loose 1/- to 3/6 doz.; rough leaf 2/- to 4/6 case, loose to 3/6 doz. Oranges 3/6 to 6/- case, special 7/- to 8/-. Benyenda, Valencia 7/- to 8/-; Navels, choice 9/- to 11/-; others 7/- to 8/-; Mandarins, Scarlet 4/- to 10/-, special 12/-; King of Siam 3/- to 7/-; Emperors 4/- to 10/-; Glens 4/- to 11/-, special 15/-. Lemons 4/6 to 10/- case. Grapefruit 5/- to 7/- case. Custard Apples 2/- to 3/-. Strawberries (in heavy supply) 4/- to 8/- doz. boxes; odd special to 10/-. Papaws 6d. to 2/6, special 3/- to 3/6. Passionfruit, No. 1 quality 6/- to 8/-, No. 2 quality 3/- to 4/-. Gooseberries 4d. to 5d. lb. Apples, S.T.P. 7/- to 9/-, Demo. 9/- to 10/6, F. Crabs 6/- to 10/-, Statesman 8/- to 9/-, Jon. 7/- to 11/-, R.B. 8/- to 10/-, Granny S. 12/- to 14/-, Del. 10/- to 10/6. Pears, W.C. 10/- to 14/-, G.M. 8/- to 12/-, W.N. 9/- to 14/-, P.T. 9/- to 11/-, B.P. 5/- to 10/-, Jos. 10/- to 15/-. Oranges 5/- to 7/-, Navels 7/- to 8/-. Mandarins 4/- to 9/-. Lemons to 11/-. Passions 5/- to 8/-.

EARLY TOMATOES.

Protection of Seedlings from Disease.

An important point in the control of fungous disease in the Tomato seed-bed is to ensure that the young plants have ample room for development. They should be spaced three inches apart in rows four inches apart, so that light and air may play their parts in strengthening them and enabling them to resist infection (states the N.S.W. Dept. of Agriculture). Close spacing produces a tall, spindly growth, and the lack of sun and of air movement between the plants is very conducive to the development of such troubles as leaf spot, blight, and seedling wilt disease.

In order to prevent the development of such diseases it is advisable to spray the young plants regularly with a half-strength solution of Bordeaux mixture. Spraying should commence almost from the seed leaf stage, and be continued at weekly or ten-day intervals. As a means of controlling thrips and aphis, by which infection with spotted wilt may be conveyed, a nicotine spray may be combined with the Bordeaux mixture. Diseased plants should, however, be immediately removed, and if there is much evidence of disease it will be wise to make a re-sowing—much better a delayed transplanting than the setting out of any but healthy and sturdy plants.

The reason for the extensive losses from foliage diseases is the continual wetting of the plants by dew and rain. Dew is heaviest in cool situations; the seed-bed should therefore be located where the night temperature is relatively high. Covering at night and during rainy weather is necessary.

FIJI BANANAS FOR CANADA.

Suva (14/9/33).—The Fiji Government is seeking to open a market for Bananas with Vancouver.

The Government has no intention of dropping the Australian market, and is only seeking an additional market.

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FRUIT FLY MENACE IN N.S.W.

UNLESS CONTROL measures were carried out, fruit fly may be a serious menace again this summer to fruitgrowers in N.S.W. Mr. Main, the Minister for Agriculture, recently said that officers of the entomological branch had trapped adult fruit flies during the winter and this indicated that householders and orchardists should undertake control work as early as possible. Th would destroy the over-wintering flies and prevent heavy infestation later on. The Act provided that all persons with fruit trees should either set out fly traps or spray patches of the tree foliage with a poison spray for five weeks prior to the harvesting or ripening of the different varieties of fruit.

The glass fly traps were baited with a mixture of vanilla, ammonia and water, or with fruit juice made as follows:—(a) One-eighth fluid ounce (a teaspoonful) vanilla, half fluid ounce (a tablespoonful) household ammonia, with six and a half pints of water (but preferably with only one and a half pints of water); or (b) boil five pounds Apples, Pears or Peaches in one gallon water to make the syrup. Six fluid ounces of the lure were placed in each tray and kept baited for the five weeks. If glass traps were not employed, it was necessary to spray patches of the foliage once a week for five weeks during the period mentioned with foliage poison spray made as follows:—Boil five pounds fruit in one gallon of water, strain syrup off, and add to syrup three gallons of water to which five ounces of arsenate of lead powder was mixed and four pounds molasses dissolved. A penalty of up to £50 might be imposed for non-compliance with the terms of the proclamation under the Act.

BANANAS IN WESTERN AUSTRALIA.

Banana plantations have been established at Carnarvon, on the Gascoyne River (north of Perth). For her main supply of Bananas, Western Australia depends upon Java, owing to the long railage and wastage of the Queensland product. The development of Banana-growing in Western Australia will be followed with much interest. The Carnarvon fruit is sweeter and of a better texture than the Java product.

Mr. Wise, M.L.A., reports that the progress of the W.A. Banana industry since 1930, has been amazing. The end of the year would see the Gascoyne River areas with over 40,000 plants, thriving and bidding fair to supply the State's demands for Bananas. In actual value the industry would be worth at least £50,000 a year to the State.

Bridgetown.—There was a good attendance of fruitgrowers at Bridgetown on August 25, when Mr. C. H. Tutton gave an interesting address regarding Australian and British fruit on the British market. He advocated the Canadian standard pack.

Perth (21/9/33).—Apples: Dunn's dumps 8/- to 12/6, Romes 8/- to 11/-, Yates 9/- to 13/-, Granny 10/- to 15/- special to 17/-, Cleos. 9/- to 12/-, Del. 12/- to 13/6, Nickajacks 8/- to 11/6. Citrus: Oranges, plain flats 2/6 to 3/6, dumps 4/- to 6/-, special to 7/-; Navels 4/- to 6/6, special to 7/6; others from 2/6, 6/- to 9/6, special to 11/3, others from 5/-. Lemons, 1/9 to 4/6, special to 5/3. Mandarins 5/- to 9/-, special to 10/-, others from 4/-. Other lines: Cape Gooseberries 4d. to 5½d. lb.; Tomatoes, best 6/- to 13/-, special to 17/-, inferior from 3/-.

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